TA-H4700

SERVICE MANUAL

AEP Model
E Model
Australian Model
Tourist Model

This set is the Amplifier section in FH-E858, MHC-4700.

This photo is AEP, G and IT model.

SPECIFICATIONS

Continuous RMS power output
For satellite speaker:
26 + 26 watts (8 ohms at 1 kHz, DIN)
31 + 31 watts (8 ohms at 1 kHz, 5% THD)
For bass speaker:
29 + 29 watts (6 ohms at 110 Hz, DIN)
34 + 34 watts (6 ohms at 110 Hz, 5% THD)

Music power output
(for AEP, G, IT model)
For satellite speaker:
45 + 45 watts (8 ohms at 1 kHz, 10% THD)
For bass speaker:
50 + 50 watts (6 ohms at 110 Hz, 10% THD)

Peak music power output
(for E, AUS, EA, TR model)
620 watts (4 speakers driven)

Inputs
MIX MIC (minijack):
sensitivity 1 mV,
impedance 600 ohms
ADAPTOR (pin jacks)
(for E, EA, TR model):
sensitivity 300 mV,
impedance 47 kilohms

Outputs
HEADPHONES
(stereo minijack):
accepts headphones of 8 ohms or more.
ADAPTOR (pin jacks)
(for E, EA, TR model):
output level 300 mV
impedance 10 kilohms
SPEAKER (SATELLITE):
accepts speakers of 8 to 16 ohms.
SPEAKER (BASS):
accepts speaker of 6 to 16 ohms.

Design and specifications subject to change without notice.

- G : Germany model
- IT : Italian model
- AUS : Australian model
- EA : Saudi Arabia model
- TR : Tourist model

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK ⚠ OR DOTTED LINE WITH MARK ⚠ ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

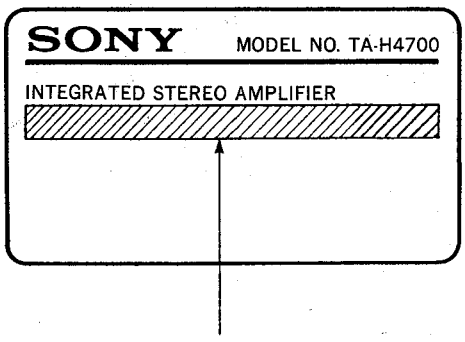
MICROFILM

INTEGRATED STEREO AMPLIFIER

SONY®

MODEL IDENTIFICATION

—Model Number Label—



AEP model : AC: 220—230V~50/60Hz
IT model : AC: 220—230V~50Hz
G model : SYSTEM MHC-4700
AC: 220—230V~50Hz
AUS model : AC: 240V~50Hz 160W
E, EA, TR model: AC: 120/220/240V~50/60Hz 160W

- IT : Italian model
- G : Germany model
- AUS: Australian model
- EA : Saudi Arabia model
- TR : Tourist model

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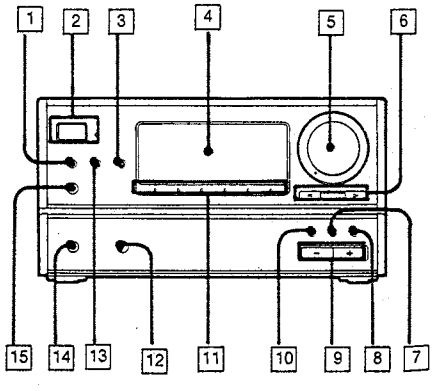
SECTION 1
GENERAL

This section is extracted from instruction manual.

1-1. PARTS IDENTIFICATION

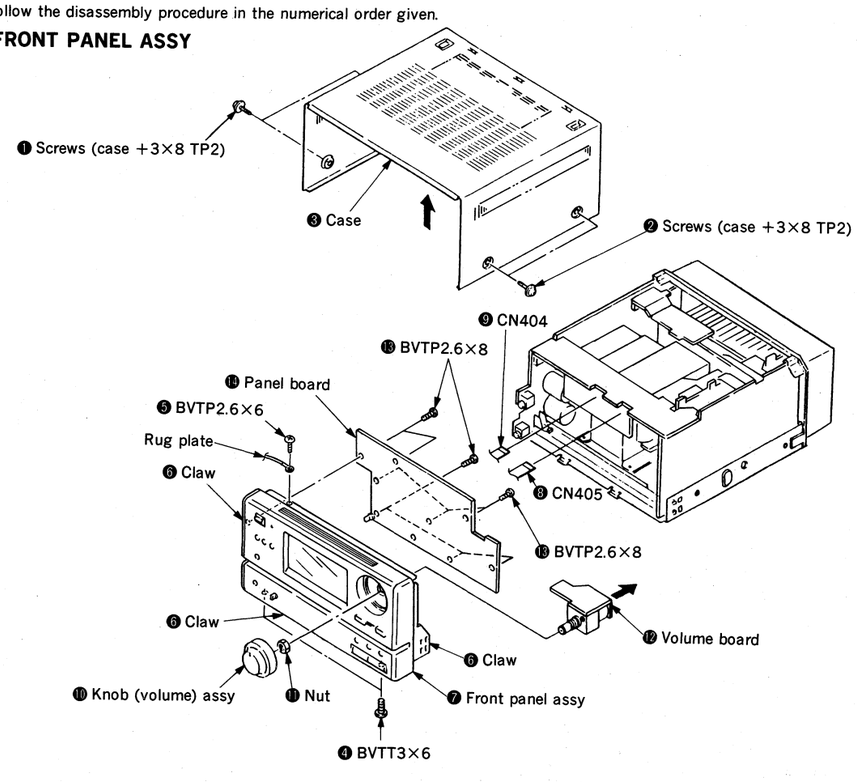
[1] WAKE UP VOL SET button and indicator (15)
[2] SYSTEM POWER switch and STANDBY indicator
The indicator remains lit as long as the AC power cord is connected to a wall outlet.
[3] DISPLAY button (22)
[4] Display window
[5] VOLUME control (30)
[6] FUNCTION <> buttons (24)
[7] T.P.O. button (20)
[8] DIRECT button (22)
[9] TOTAL EFFECT CONTROL –/+ buttons (24)
[10] MUSIC button (20)
[11] Function indicators
[12] MIC (microphone) LEVEL control (27)
[13] (For MHC-4700) MUTING button and indicator (30)
(For FH-E858) KARAOKE PON button and indicator (27)
[14] MIX MIC (microphone) input jack (26)
[15] HEADPHONES jack (stereo minijack) (30)



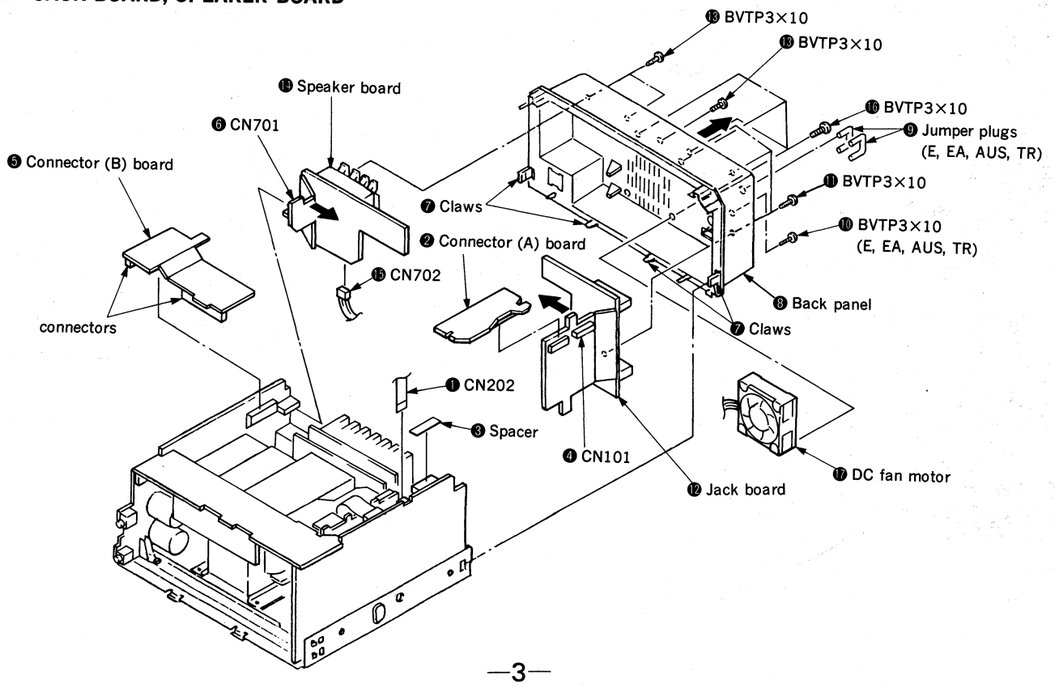
SECTION 2
DISASSEMBLY

Note : Follow the disassembly procedure in the numerical order given.

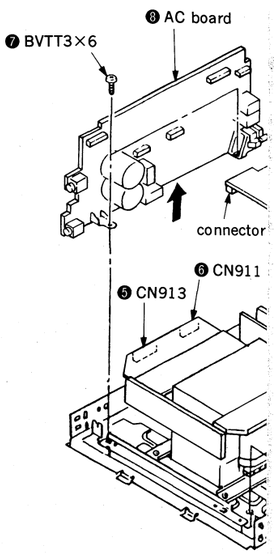
2-1. FRONT PANEL ASSY



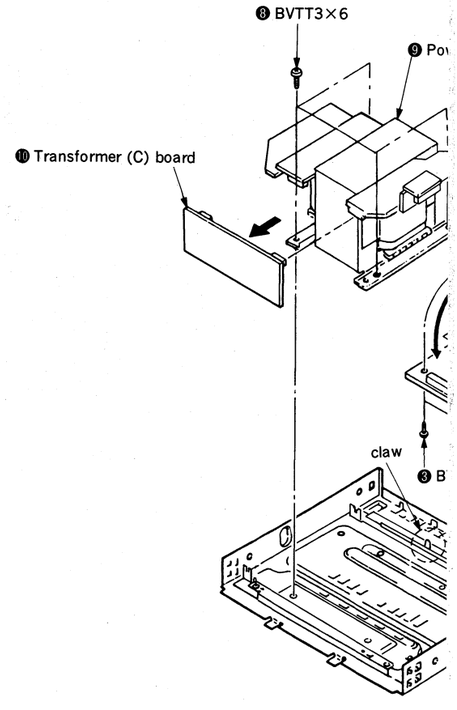
2-2. JACK BOARD, SPEAKER BOARD



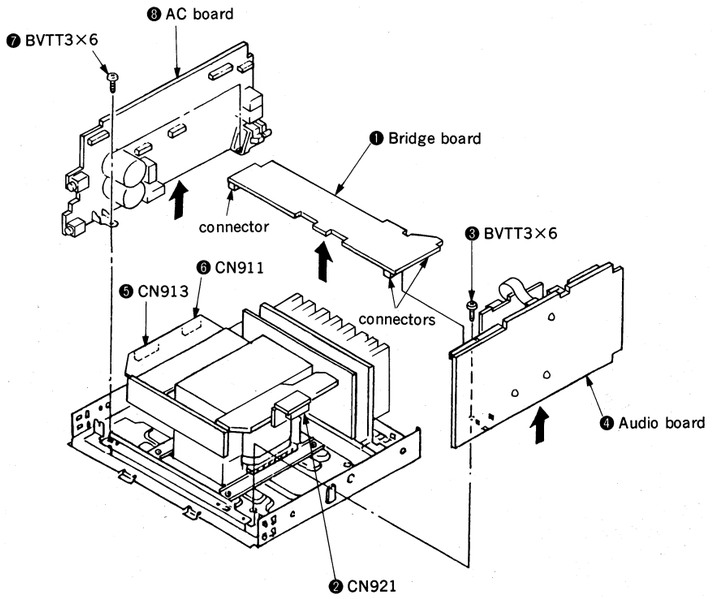
2-3. AUDIO BOARD, AC BOARD



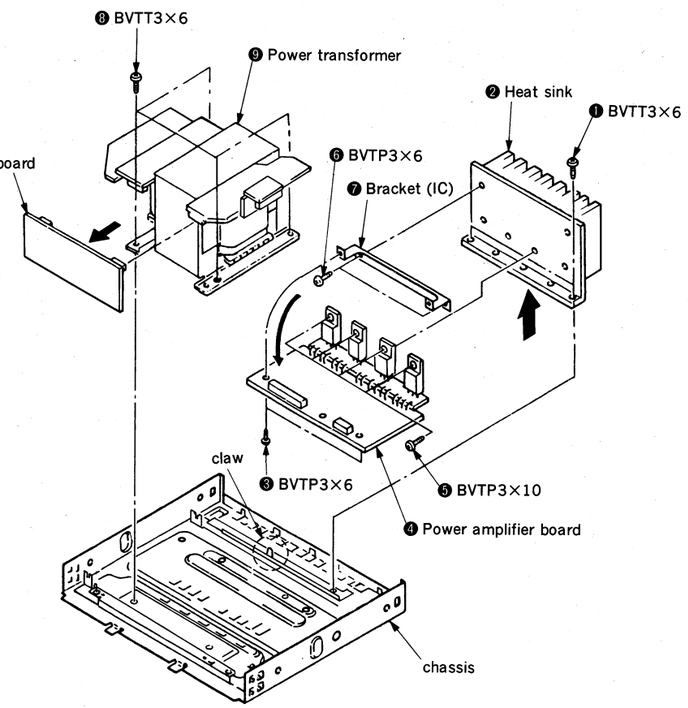
2-4. POWER AMPLIFIER BOARD, POWER TRANSFORM



BOARD

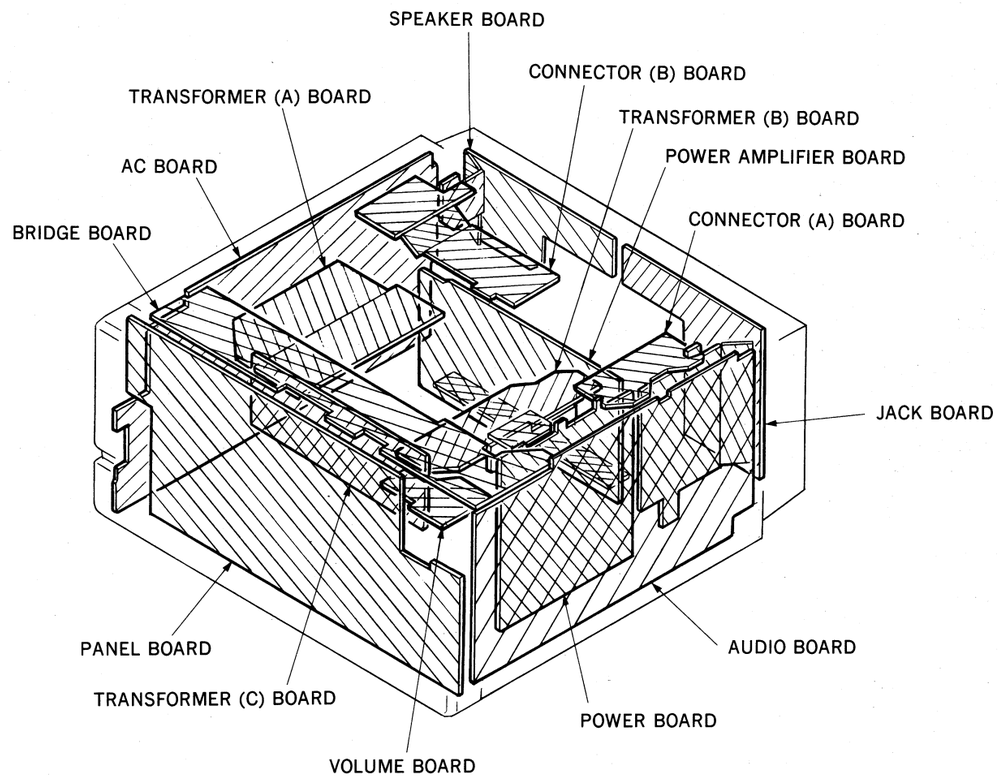


BOARD, POWER TRANSFORMER



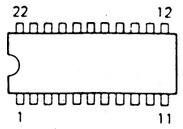
SECTION 3
DIAGRAMS

3-1. CIRCUIT BOARDS LOCATION



3-2. SEMICONDUCTOR LEAD LAYOUTS

AN6291



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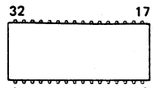

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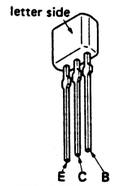

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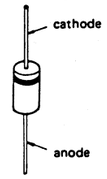
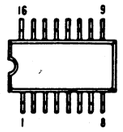


CD4051BCM
CD4052BCM
CD4053BCM



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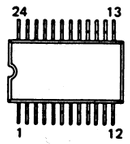

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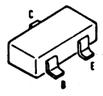
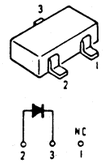
2SA1342
2SC3052-EF
2SC3396
2SC3900



1SS184



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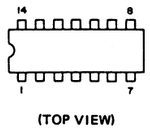
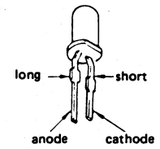


SEL2210S-CD



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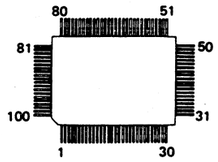

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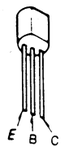
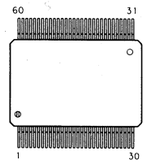
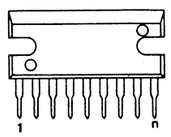
2SD1616A-K



SN755703



LA5603



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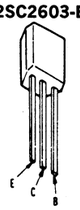

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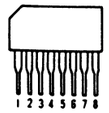
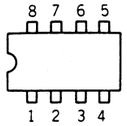
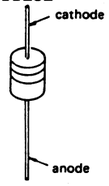


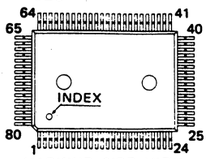
LB1639
LM393P
X24C01P



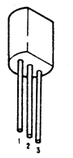
HZS30-2L
HZS6A1L
UZL-33H
11ES2



μPD78134GF-051-3B9

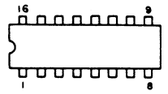


LM35DZ-SL



Pin 1 Vcc
2 OUTPUT
3 GND

XR1091DCP



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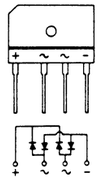

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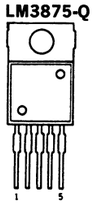


● Semiconductor Location

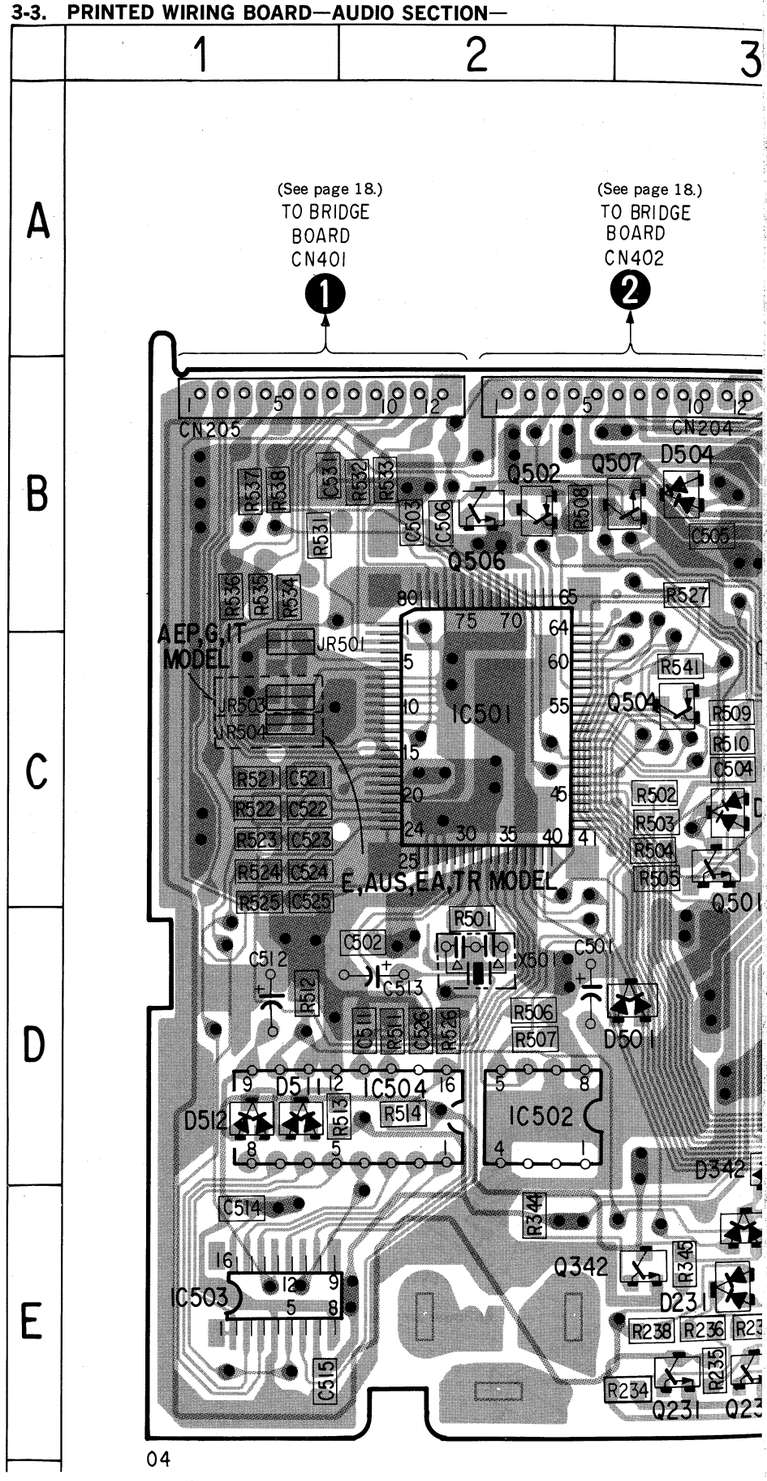
Ref. No.	Location
D231	E-3
D291	D-3
D292	D-3
D341	E-3
D342	D-3
D501	D-3
D502	C-3
D503	B-7
D504	B-3
D511	D-1
D512	D-1
D541	C-3
D601	B-3
IC101	B-8
IC102(※1)	C-8
IC103	E-6
IC201	D-4
IC301	D-6
IC302	D-7
IC303	D-8
IC411	B-7
IC421	C-7
IC501	C-2
IC502	D-2
IC503	E-1
IC504	D-2
IC601	B-4
Q231	E-3
Q232	E-3
Q291	C-4
Q292	C-4
Q311	D-8
Q341	D-7
Q342	E-3
Q361	D-7
Q391	D-7
Q501	C-3
Q502	B-2
Q504	C-3
Q506	B-2
Q507	B-3
Q601	B-5
Q651	B-5

※1 : Use on E, Australian, Saudi Arabia and Tourist model.

Note:

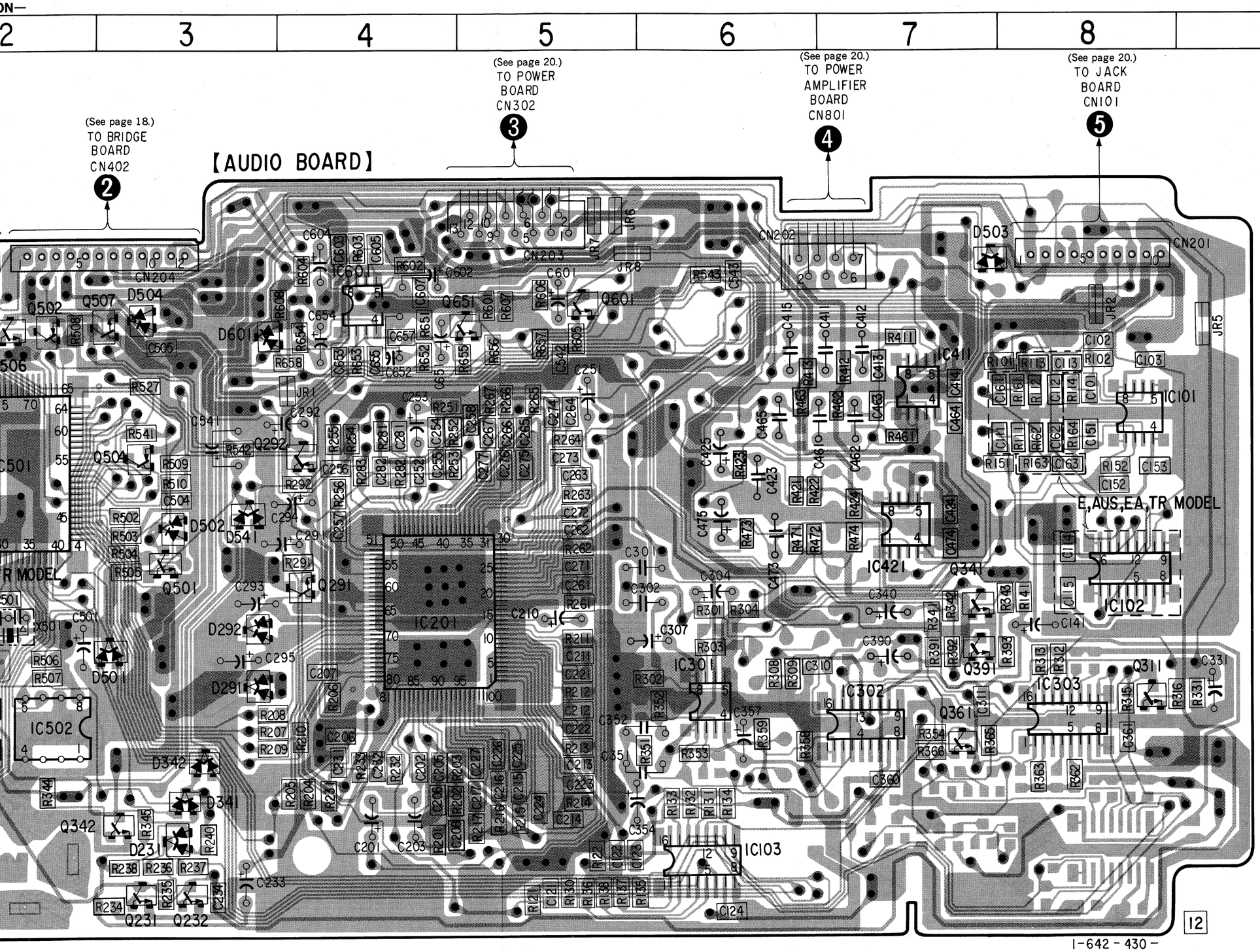
- ○——○ : parts extracted from the component side.
- ● : Through hole.
- ▨ : Pattern on the side which is seen.
- ▨ : Pattern of the rear side.
- G : Germany model
  IT : Italian model
  AUS : Australian model
  EA : Saudi Arabia model
  TR : Tourist model

3-3. PRINTED WIRING BOARD—AUDIO SECTION—

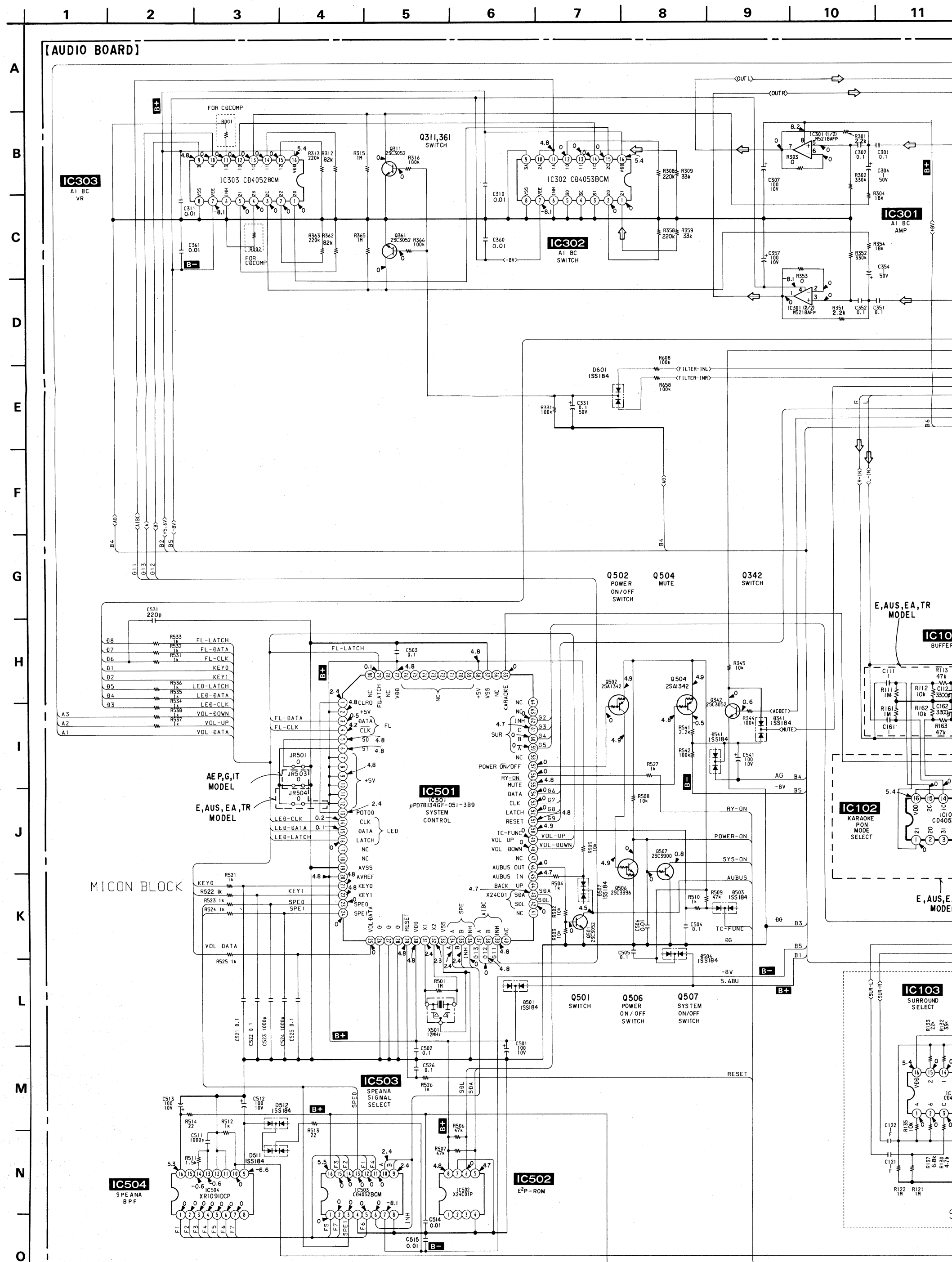


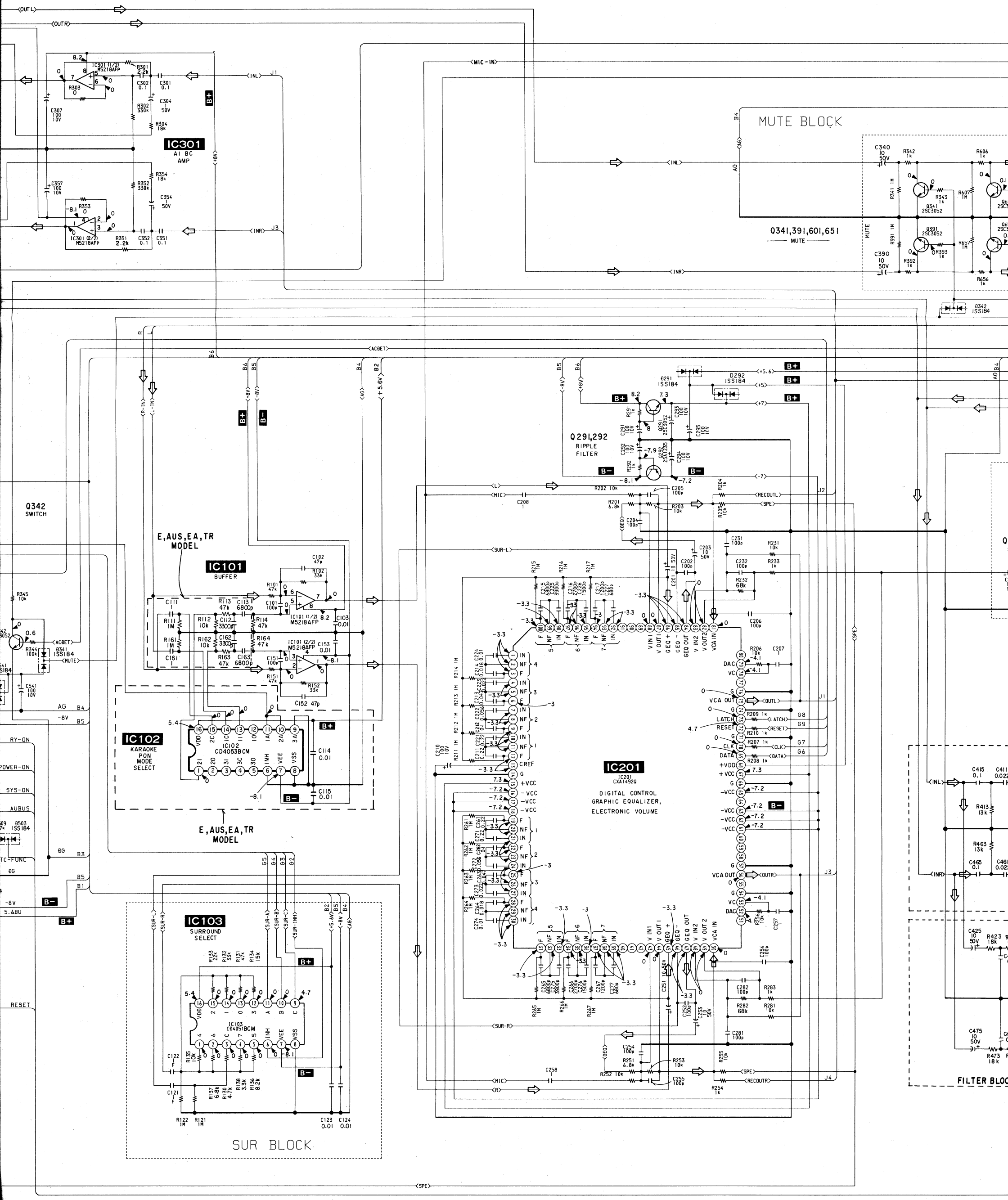
ON—

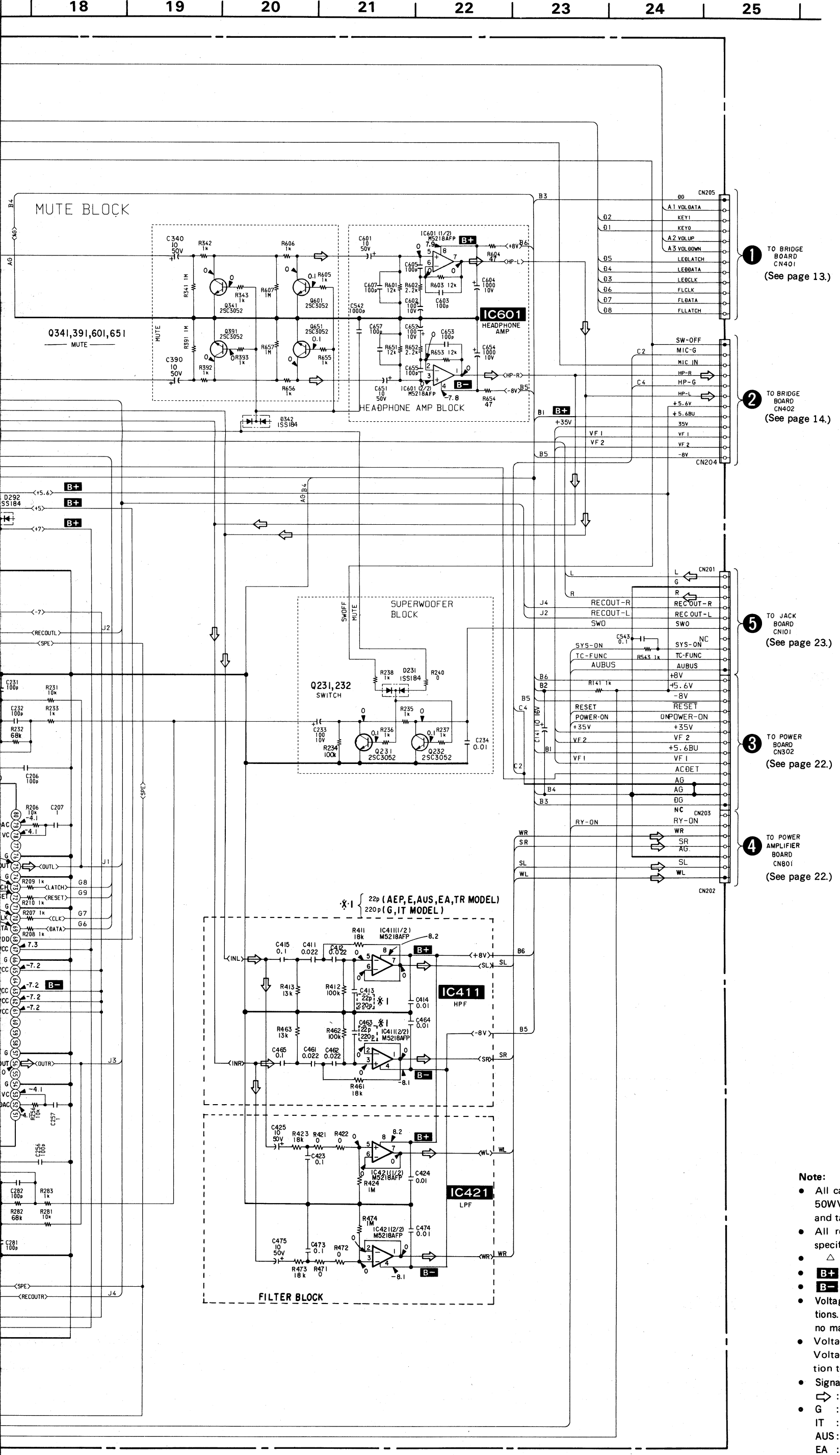
2 3 4 5 6 7 8 9


【AUDIO BOARD】
(See page 18.)
TO BRIDGE BOARD
CN402
2
(See page 20.)
TO POWER BOARD
CN302
3
(See page 20.)
TO POWER AMPLIFIER BOARD
CN801
4
(See page 20.)
TO JACK BOARD
CN101
5
CN204
CN203
CN202
CN201
D503
IC601
Q601
Q651
D601
Q507
D504
Q502
IC201
IC301
IC302
IC303
IC411
IC421
IC101
IC102
IC103
IC502
Q501
Q504
D502
D541
Q291
Q292
D292
D291
D501
Q231
Q232
D231
D341
D342
Q341
Q391
Q361
Q311
E,AUS,EA,TR MODEL
12
1-642-430-

3-4. SCHEMATIC DIAGRAM—AUDIO SECTION— • Refer to page 29 for IC Block Diagrams.



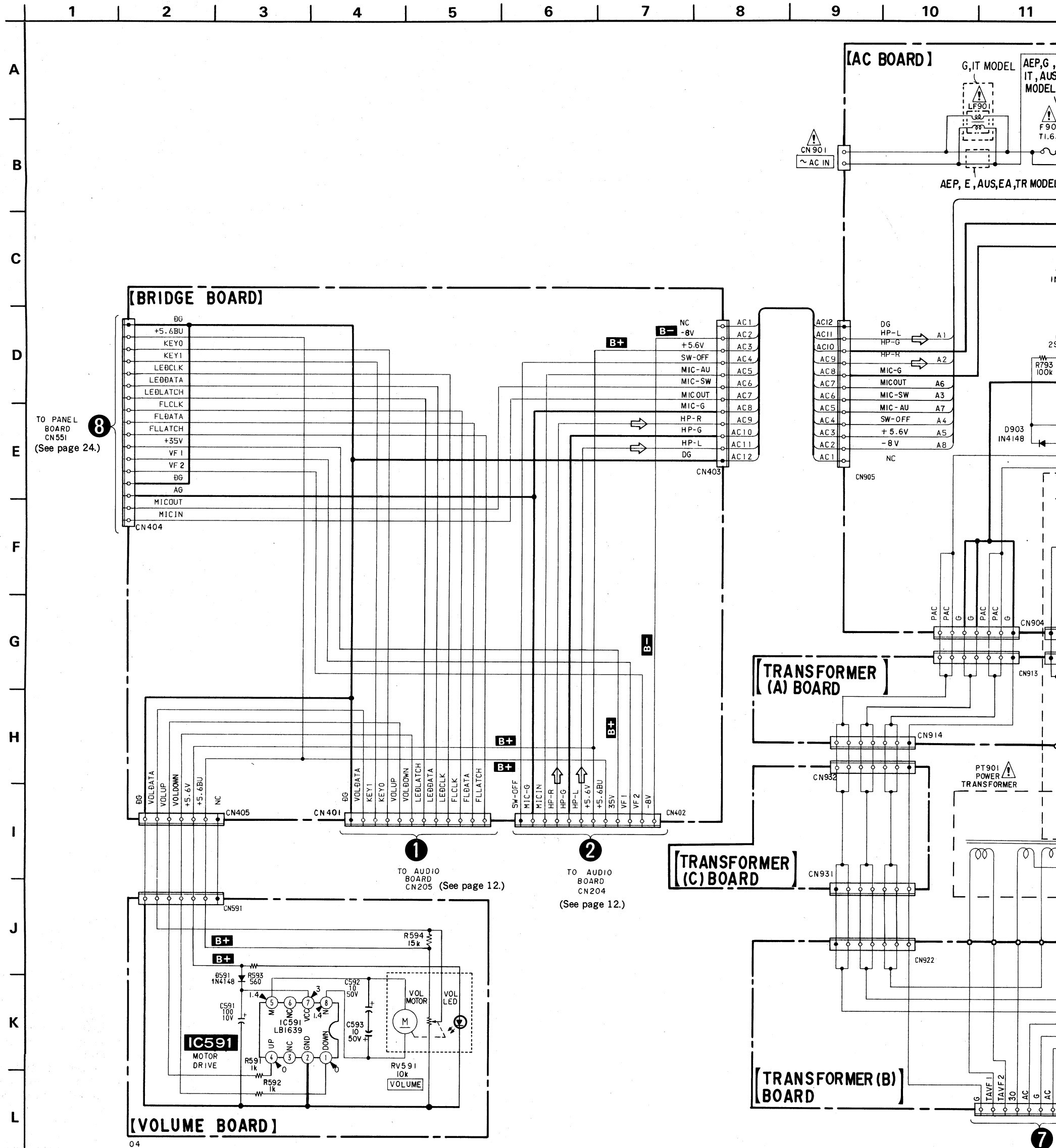

IC301
A1 BC AMP
IC301 (1/2) M5218AFP
IC301 (2/2) M5218AFP
IC101
BUFFER
IC101 (1/2) M5218AFP
IC101 (2/2) M5218AFP
IC102
KARAOKE PON MODE SELECT
IC102 CD4053BCM
IC103
SURROUND SELECT
IC103 CD4051BCM
IC201
IC201 CXA1492Q
DIGITAL CONTROL GRAPHIC EQUALIZER, ELECTRONIC VOLUME
MUTE BLOCK
Q341,391,601,651
MUTE
Q342
SWITCH
Q291,292
RIPPLE FILTER
E,AUS,EA,TR MODEL
E,AUS,EA,TR MODEL
SUR BLOCK
FILTER BLOC
<OUT L>
<OUT R>
<INL>
<INR>
<MIC-IN>
<ACBET>
<MUTE>
<+8V>
<-8V>
<+5.6V>
<-7>
<R-IN>
<L-IN>
<SUR-L>
<SUR-R>
<SPE>
<RECOUTL>
<RECOUTR>
<OUTL>
<OUTR>
<LATCH>
<RESET>
<CLK>
<DATA>
B+
B-
AG
B1
B2
B3
B4
B5
B6
G2
G3
G4
G5
G6
G7
G8
G9
J1
J2
J3
J4
RY-ON
POWER-ON
SYS-ON
AUBUS
TC-FUNC
5.6BU
RESET

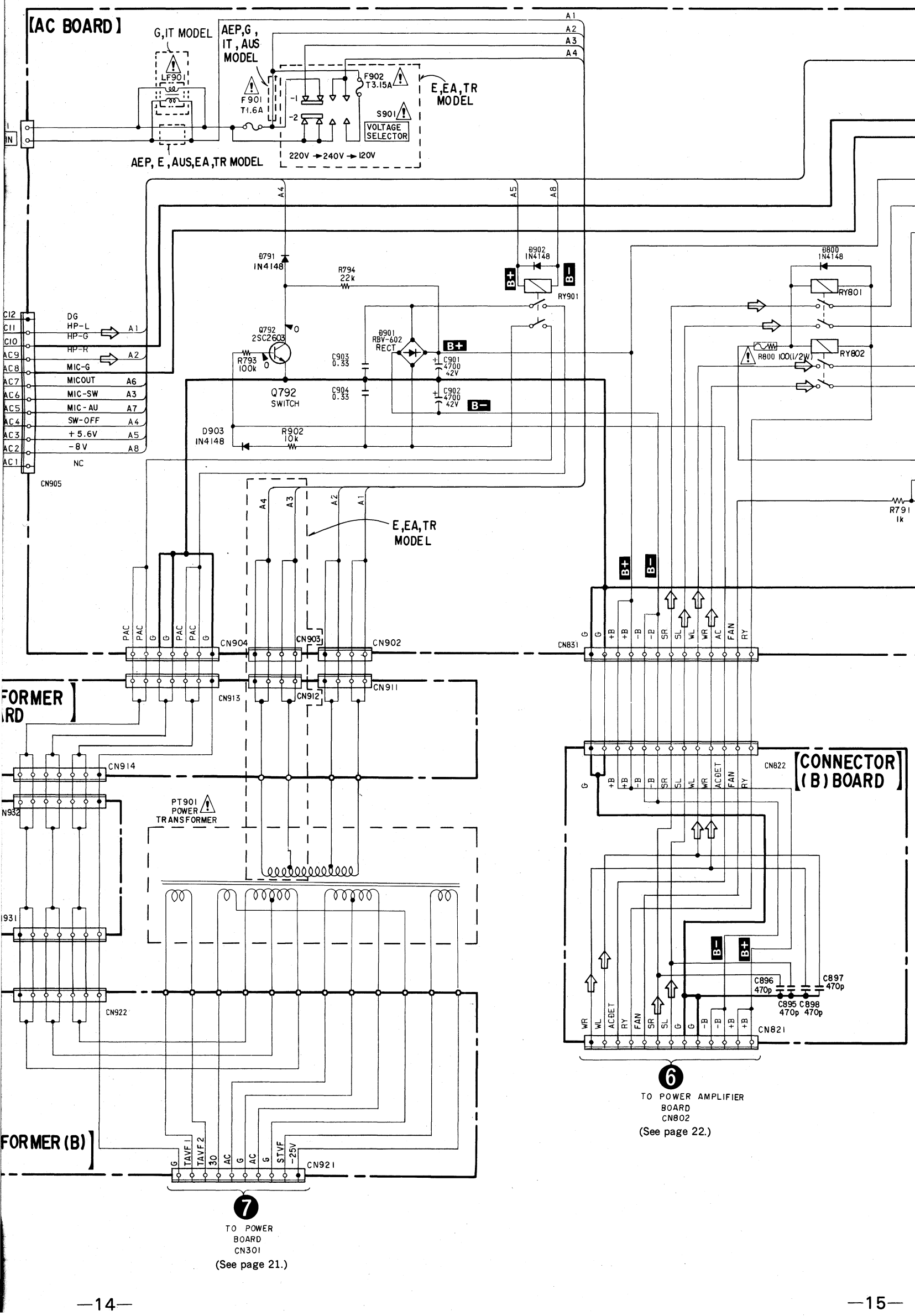


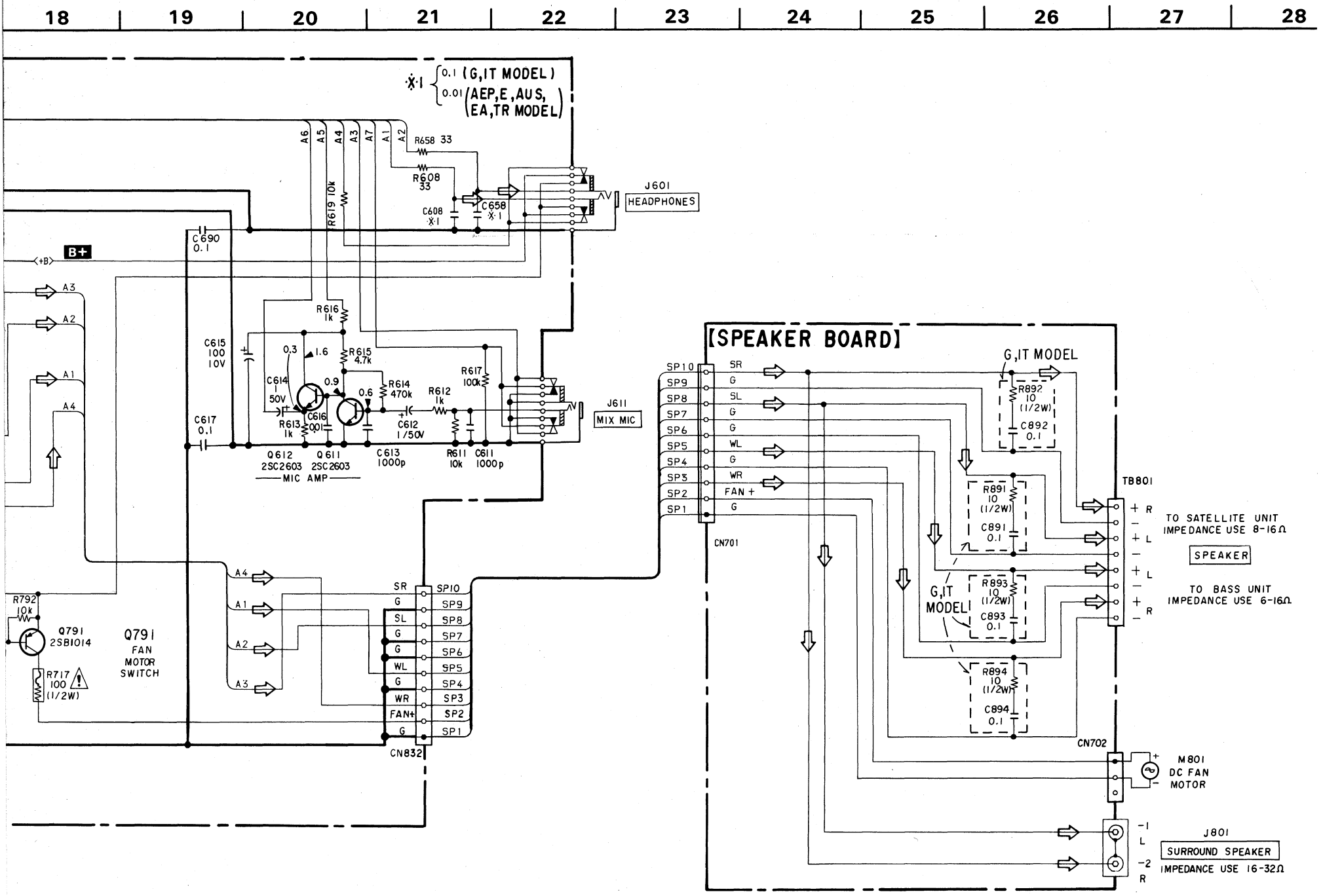
Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4 W or less unless otherwise specified.
- △ : internal component.
- B+ : B+ Line
- B− : B− Line
- Voltage is dc with respect to ground under no-signal conditions.
  no mark: SYSTEM POWER ON
- Voltages are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : TUNER
- G : Germany model
  IT : Italian model
  AUS : Australian model
  EA : Saudi Arabia model
  TR : Tourist model

3-5. SCHEMATIC DIAGRAM—AC/VOLUME SECTION— • Refer to page 29 for IC Block Diagrams.




[AC BOARD]
G,IT MODEL
AEP,G, IT, AUS MODEL
LF901
F901 T1.6A
F902 T3.15A
S901
VOLTAGE SELECTOR
220V → 240V → 120V
E,EA,TR MODEL
AEP, E, AUS,EA,TR MODEL
A1
A2
A3
A4
CN905
DG
HP-L
HP-G
HP-R
MIC-G
MICOUT
MIC-SW
MIC-AU
SW-OFF
+5.6V
-8V
NC
D791 IN4148
R794 22k
D902 IN4148
RY901
Q792 2SC2603
R793 100k
Q792 SWITCH
D901 RBV-602 RECT
C903 0.33
C904 0.33
C901 4700 42V
C902 4700 42V
D903 IN4148
R902 10k
D800 IN4148
RY801
RY802
R800 100(1/2W)
C690 0.1
R619 10k
R616 1k
C615 100 10V
R615 4.7k
C614 50V
C616 .001
R613 1k
C617 0.1
Q612 2SC2603
Q611 2SC2603
MIC AMP
C613 1000
R792 10k
Q791 2SB1014
R791 1k
R717 100 (1/2W)
Q791 FAN MOTOR SWITCH
CN904
CN903
CN902
CN913
CN912
CN911
CN914
CN932
CN931
CN922
CN921
CN831
G
+B
-B
-E
SR
SL
WL
WR
AC
FAN
RY
PAC
TAVF1
TAVF2
30
STVF
-25V
PT901 POWER TRANSFORMER
[POWER TRANSFORMER (B)]
CN822
[CONNECTOR (B) BOARD]
ACDET
C896 470p
C897 470p
C895 470p
C898 470p
CN821
6
TO POWER AMPLIFIER BOARD CN802
(See page 22.)
7
TO POWER BOARD CN301
(See page 21.)



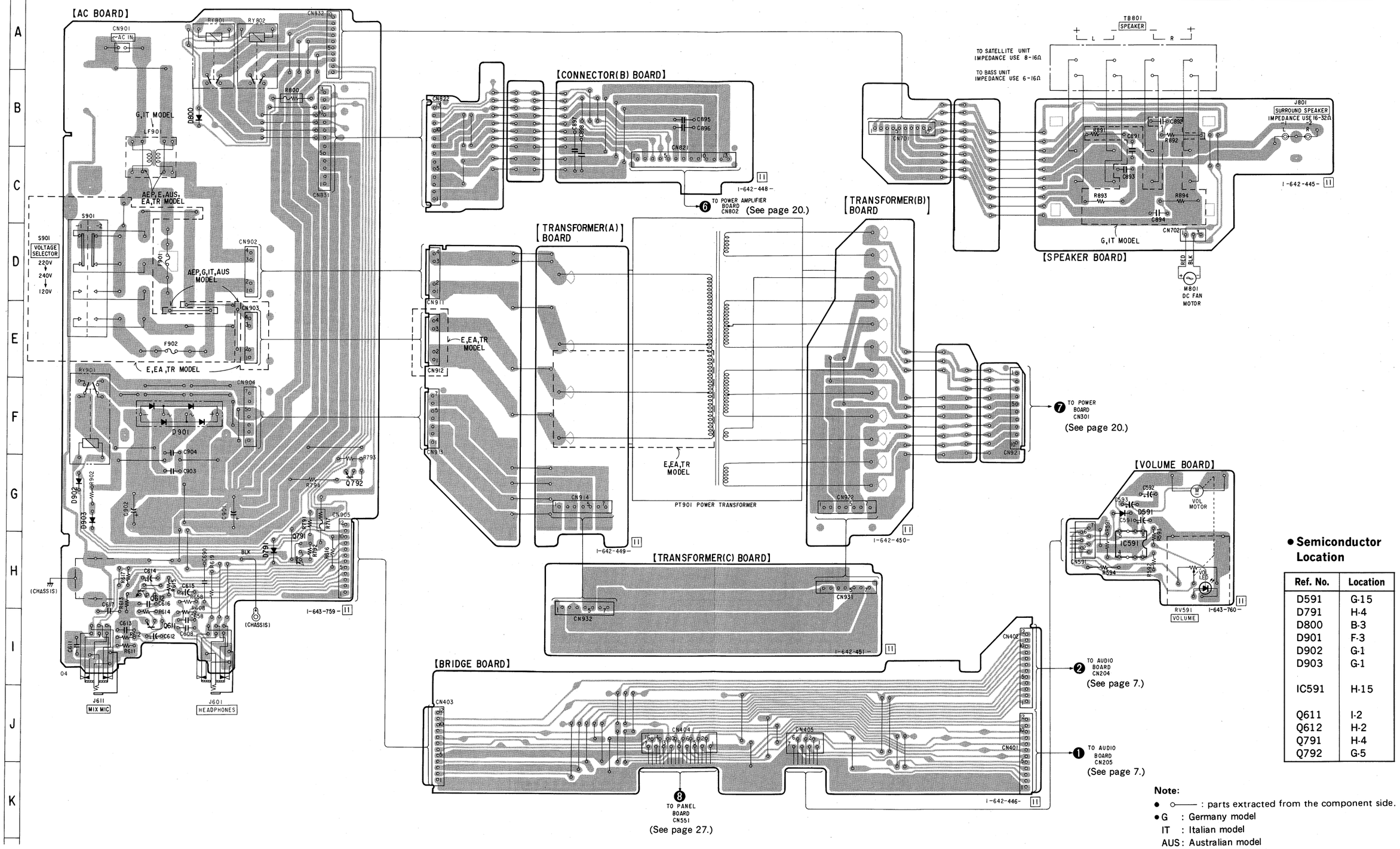
Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- ⊣W⊢ : fusible resistor.

Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

- **B+** : B+ Line
- **B−** : B− Line
- Voltage is dc with respect to ground under no-signal conditions.
  no mark: SYSTEM POWER ON
- Voltages are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : TUNER
- G : Germany model
  IT : Italian model
  AUS: Australian model
  EA : Saudi Arabia model
  TR : Tourist model

3-6. PRINTED WIRING BOARDS—AC/VOLUME SECTION— • Refer to page 6 for Semiconductor Lead Layouts.



• Semiconductor Location

Ref. No.	Location
D591	G-15
D791	H-4
D800	B-3
D901	F-3
D902	G-1
D903	G-1
IC591	H-15
Q611	I-2
Q612	H-2
Q791	H-4
Q792	G-5

Note:

- ○—— : parts extracted from the component side.
- G : Germany model
- IT : Italian model
- AUS : Australian model
- EA : Saudi Arabia model
- TR : Tourist model

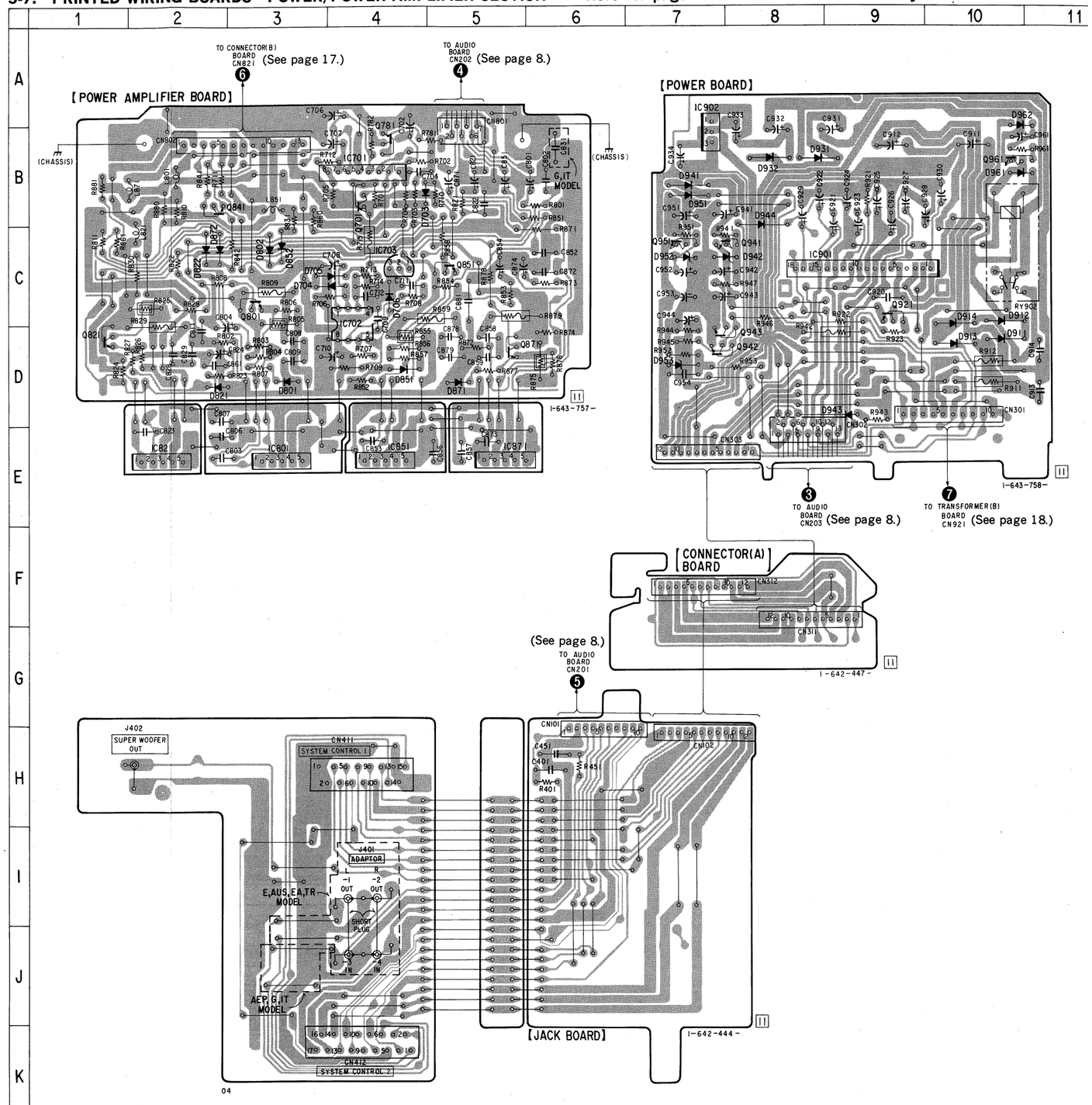
● Semiconductor Location

Ref. No.	Location
D703	B-4
D704	C-3
D705	C-3
D706	C-4
D801	D-3
D802	C-3
D821	D-2
D822	C-2
D851	D-4
D852	C-3
D871	D-5
D872	C-2
D911	D-10
D912	C-10
D913	D-10
D914	C-10
D931	B-8
D932	B-8
D941	B-7
D942	C-8
D943	D-9
D944	B-8
D951	B-7
D952	C-7
D953	D-7
D961	B-10
D962	B-10
IC701	B-4
IC702	C-4
IC703	C-4
IC801	E-3
IC821	E-2
IC851	E-4
IC871	E-5
IC901	C-9
IC902	B-7
Q701	B-4
Q781	B-4
Q801	C-3
Q821	D-1
Q841	B-2
Q851	C-5
Q871	D-5
Q921	C-9
Q941	C-8
Q942	D-8
Q943	D-8
Q951	C-7
Q961	B-10

Note:

- ○—— : parts extracted from the component side.
- G : Germany model
  IT : Italian model
  AUS : Australian model
  EA : Saudi Arabia model
  TR : Tourist model

3-7. PRINTED WIRING BOARDS—POWER/POWER AMPLIFIER SECTION— ● Refer to page 6 for Semiconductor Lead Layouts.



3-8. SCHEMATIC DIAGRAM—POWER/POWER AMPLIFIER SECTION— • Refer to page 29 for IC Block Diagrams.

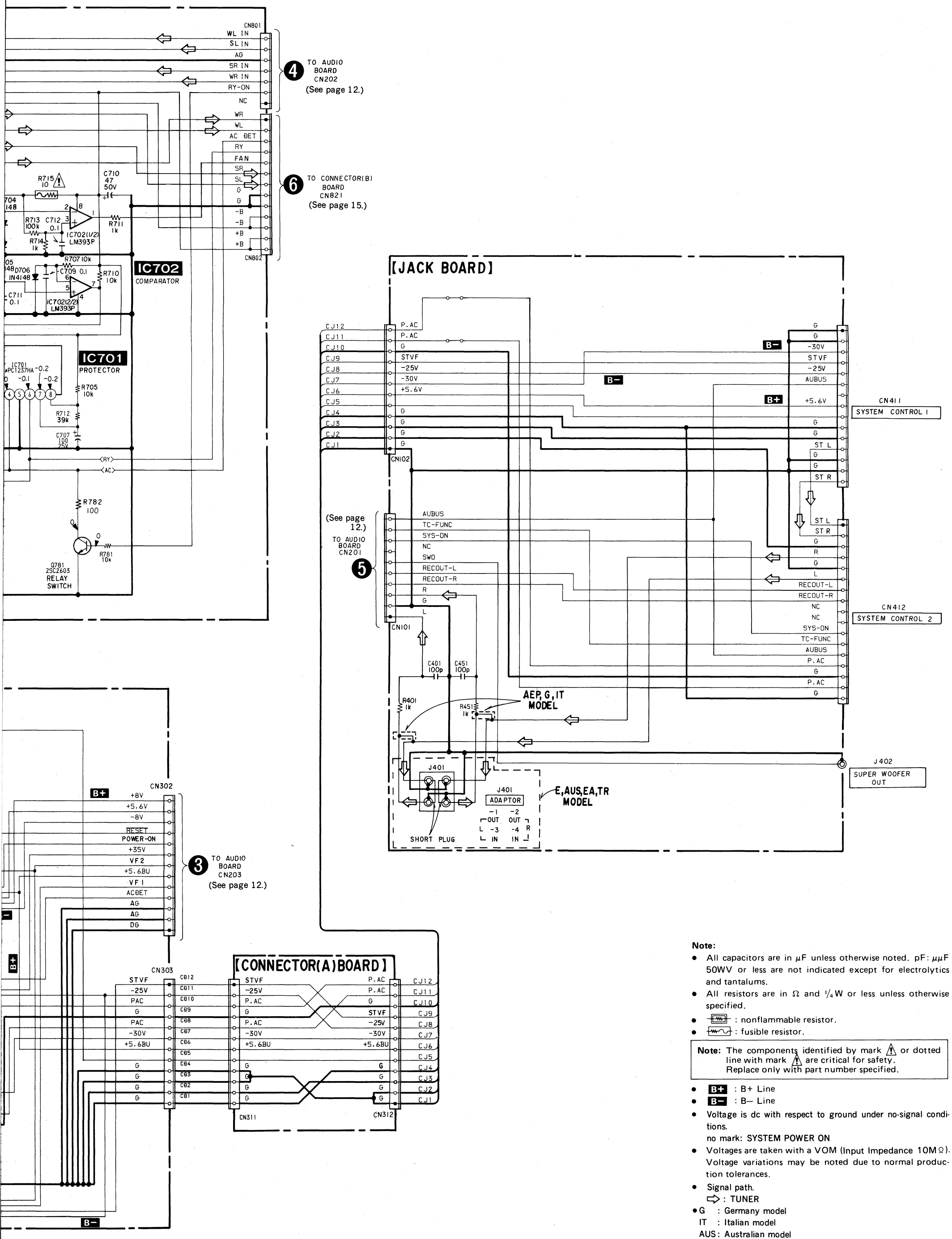
[POWER AMPLIFIER BOARD]

IC801 POWER AMP
IC821 POWER AMP
IC851 POWER AMP
IC871 POWER AMP
G,IT MODEL
Q801,821 OVER LOAD DET
IC703 THERMAL DETECT
Q841 FAN MOTOR DRIVE
Q851,871 OVER LOAD DET
Q701 PROTECT SWITCH
Q781 2SC2603 RELAY SWITCH

[POWER BOARD]

IC902 REG
IC901 REG, RESET
IC901 LA5603
Q921 2SC2603 POWER ON/OFF SWITCH
Q942,943 SWITCH
Q941,951 REG
Q961 RELAY DRIVE
RY902

TO TRANSFORMER(B) BOARD CN921 (See page 14.)



Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- : nonflammable resistor.
- : fusible resistor.

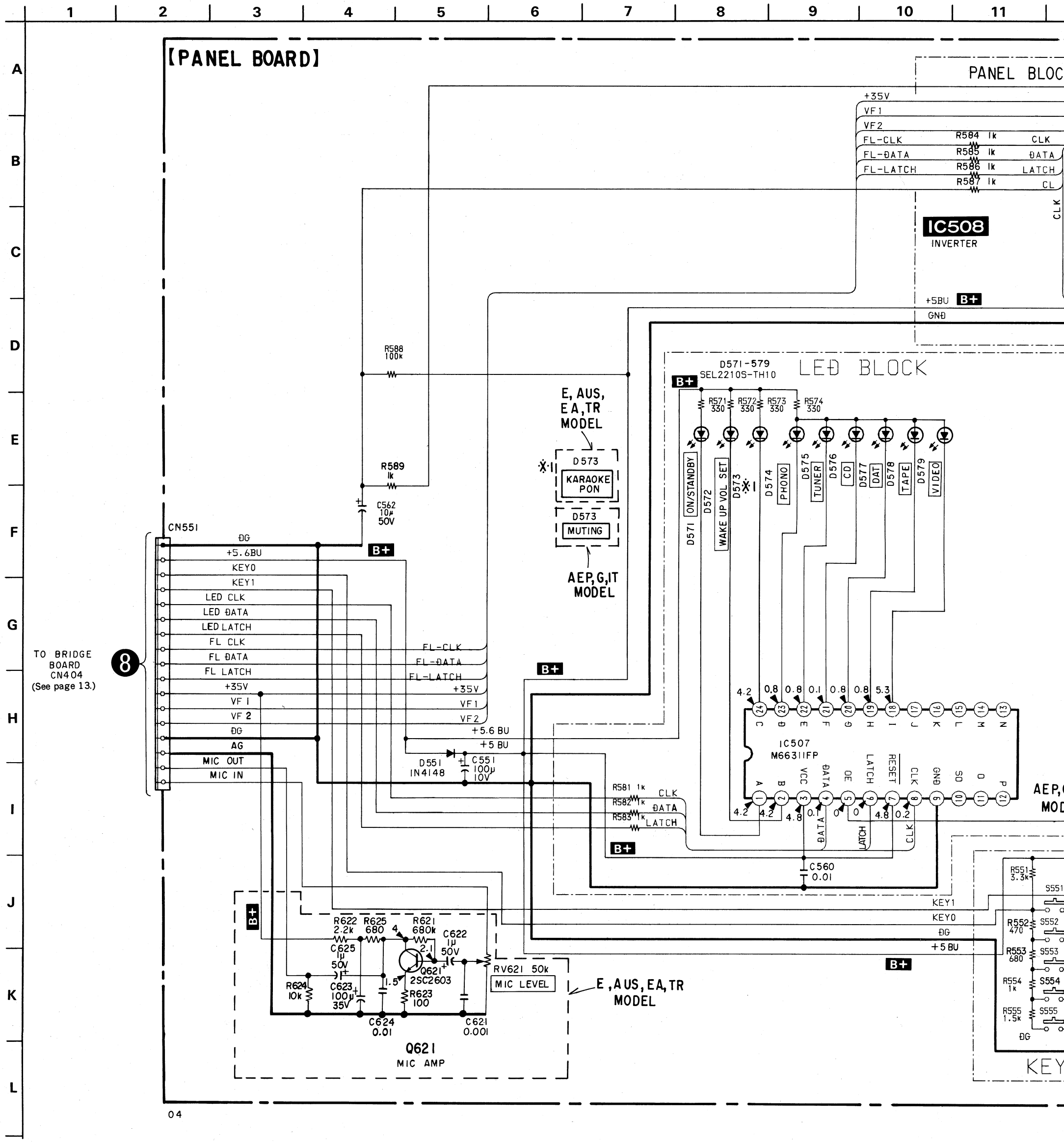
Note: The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

- B+ : B+ Line
- B− : B− Line
- Voltage is dc with respect to ground under no-signal conditions.
  no mark: SYSTEM POWER ON
- Voltages are taken with a VOM (Input Impedance 10MΩ). Voltage variations may be noted due to normal production tolerances.
- Signal path.
  ⇨ : TUNER
- G : Germany model
  IT : Italian model
  AUS: Australian model
  EA : Saudi Arabia model
  TR : Tourist model

Note:

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise specified.
- B+ : B+ Line
- B− : B− Line

3-9. SCHEMATIC DIAGRAM—PANEL SECTION— • Refer to page 29 for IC Block Diagrams.

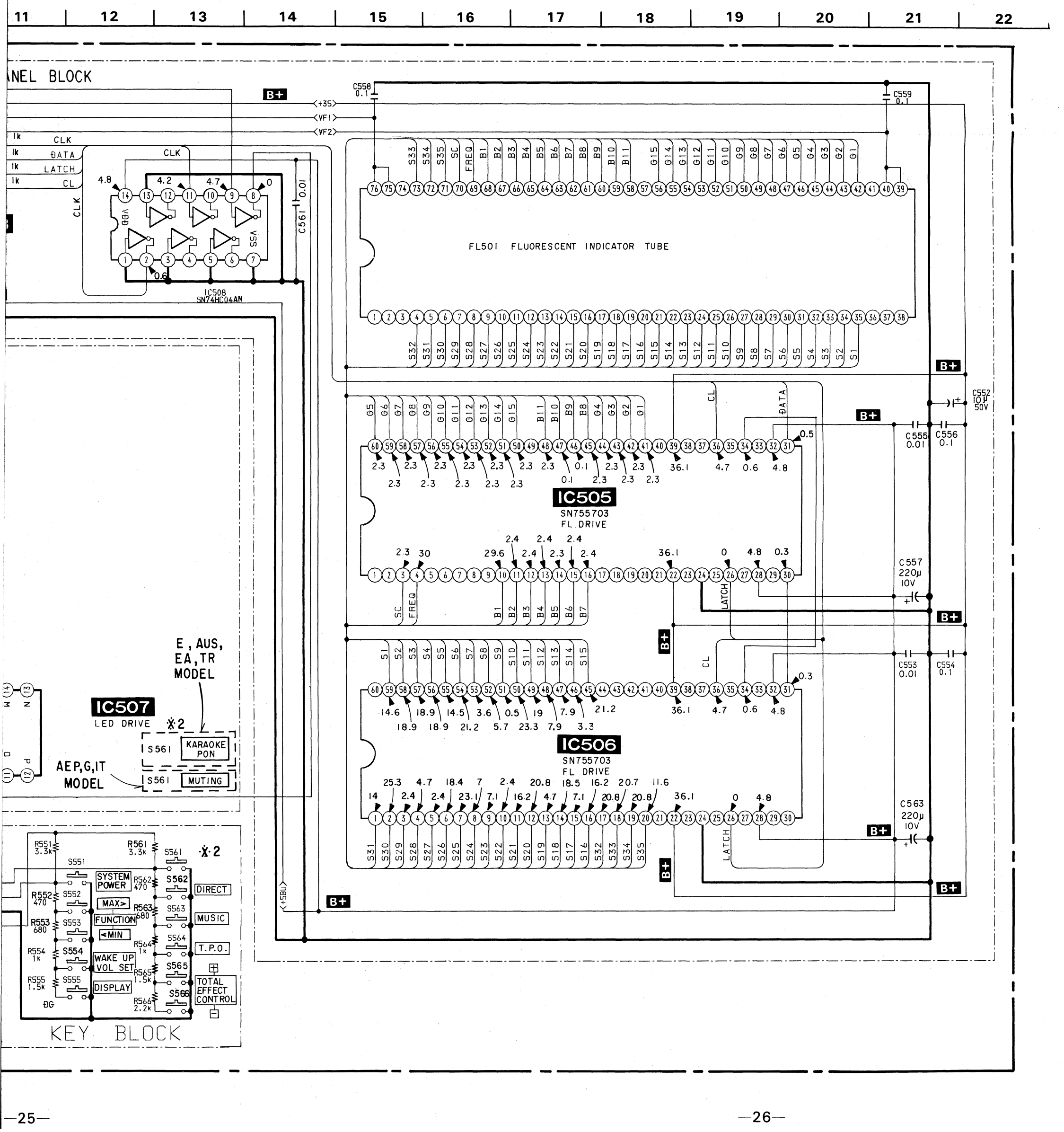


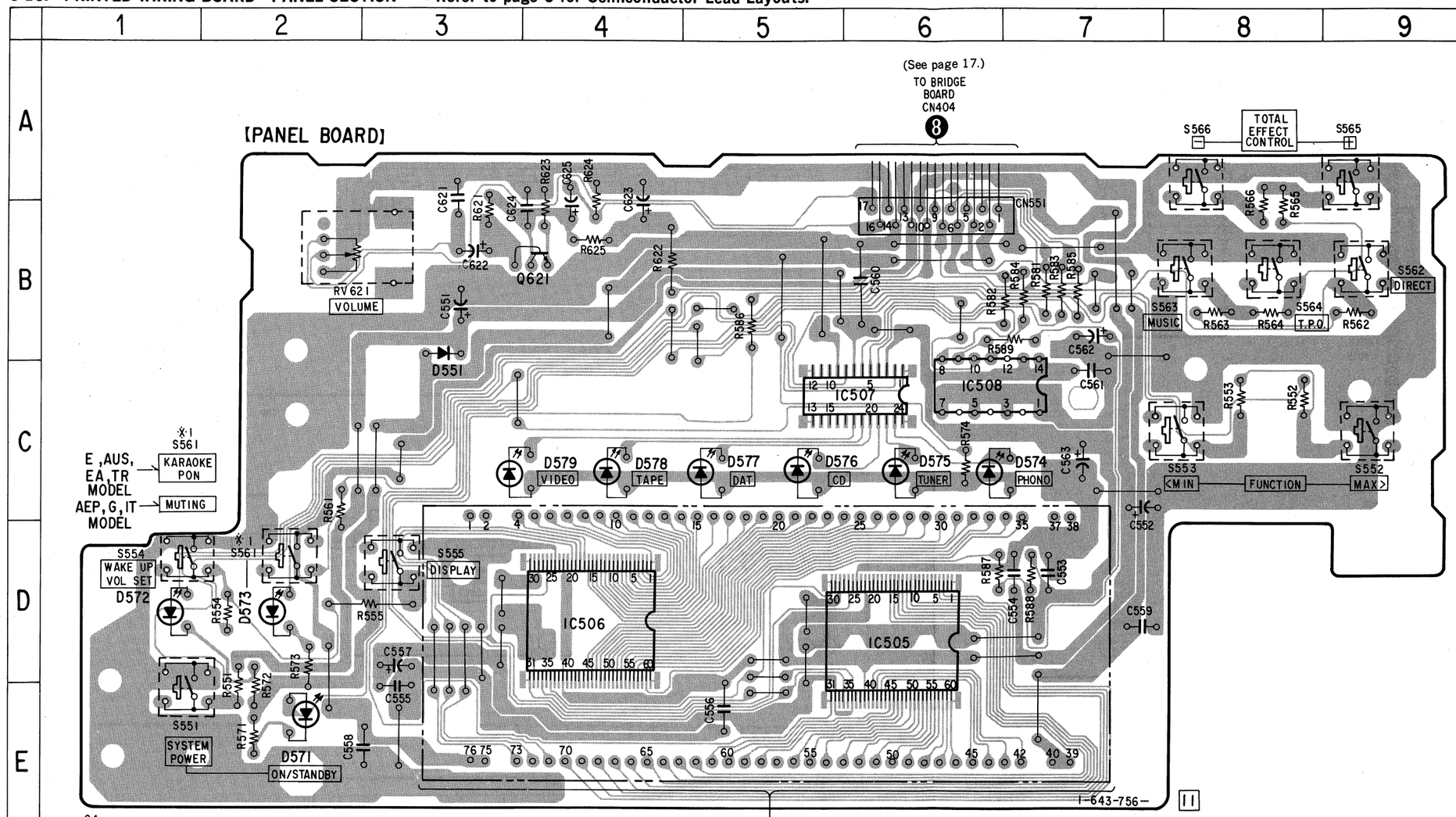
pF: μμF
ectrolytics

otherwise

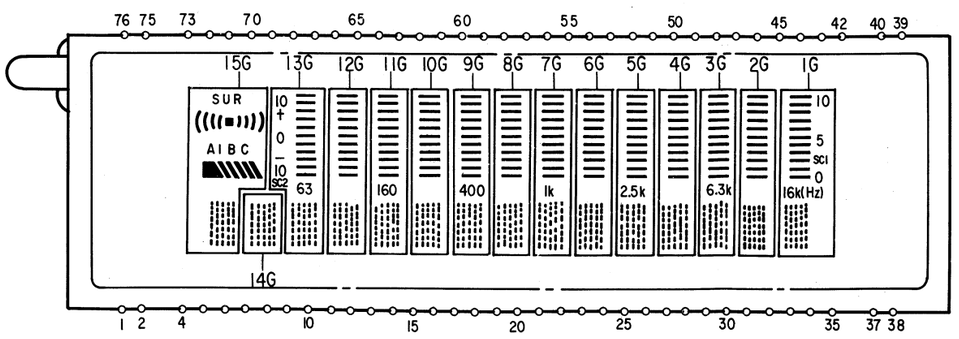
- Voltage is dc with respect to ground under no-signal conditions.
  no mark: SYSTEM POWER ON
- Voltages are taken with a VOM (Input Impedance 10MΩ).
  Voltage variations may be noted due to normal production tolerances.

- G : Germany model
  IT : Italian model
  AUS: Australian model
  EA : Saudi Arabia model
  TR : Tourist model





FL501 FLUORESCENT INDICATOR TUBE



• Semiconductor Location

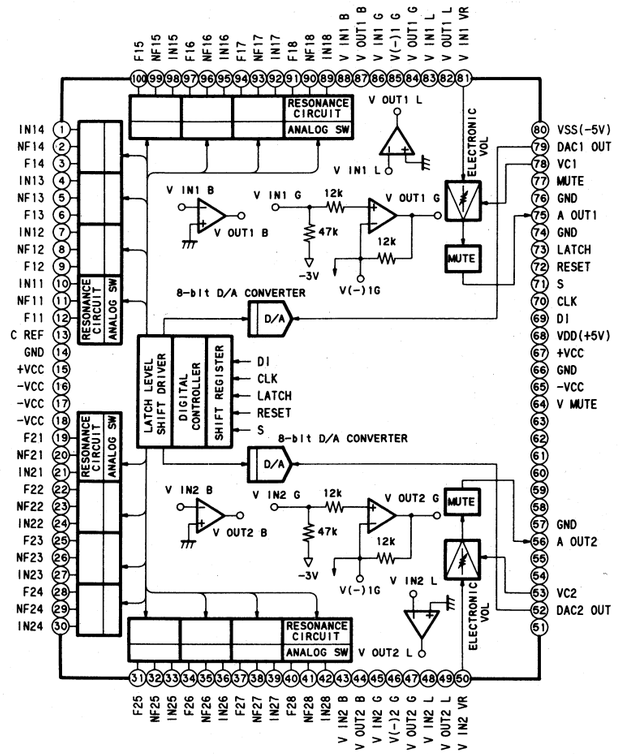
Ref. No.	Location
D551	B-3
D571	E-2
D572	D-1
D573	D-2
D574	C-6
D575	C-6
D576	C-5
D577	C-5
D578	C-4
D579	C-4
IC505	D-6
IC506	D-4
IC507	C-6
IC508	C-6
Q621	B-4

Note:

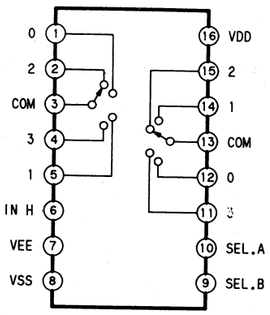
- ○—— : parts extracted from the component side.
- • G : Germany model
  IT : Italian model
  AUS : Australian model
  EA : Saudi Arabia model
  TR : Tourist model

• IC Block Diagrams

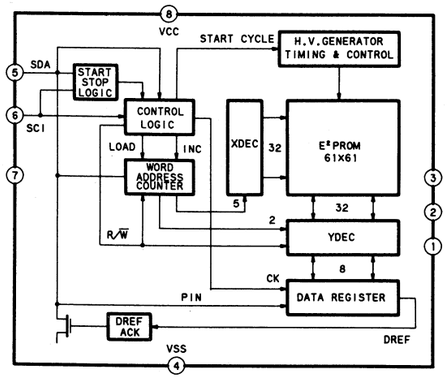
IC201 CXA1492Q



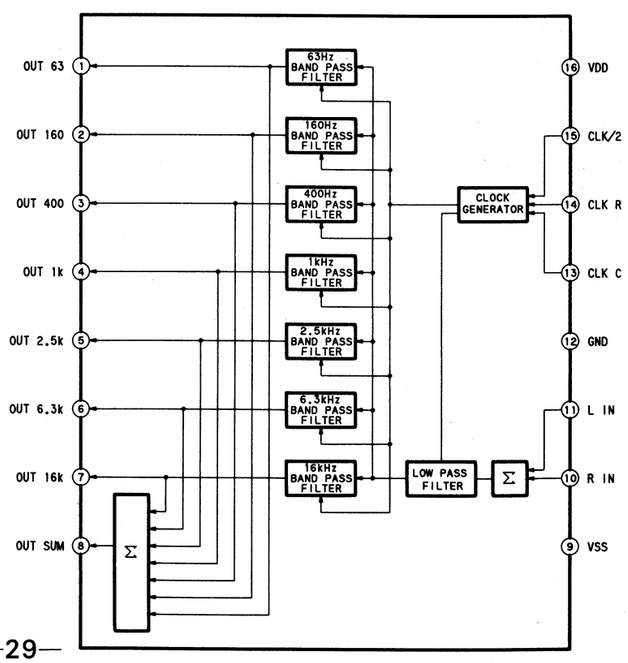
IC303, 503 CD4052BCM



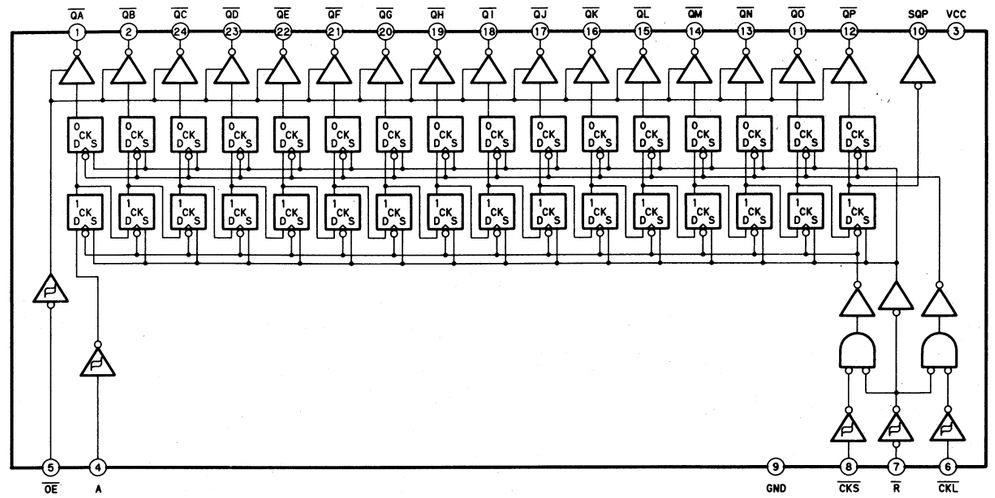
IC502 X24C01P



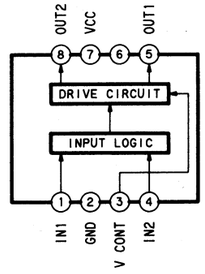
IC504 XR1091DCP



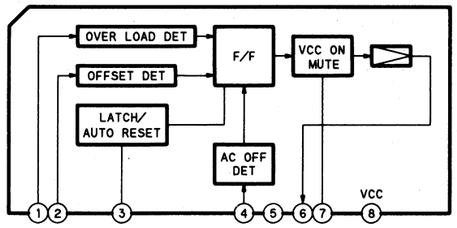
IC507 M66311FP



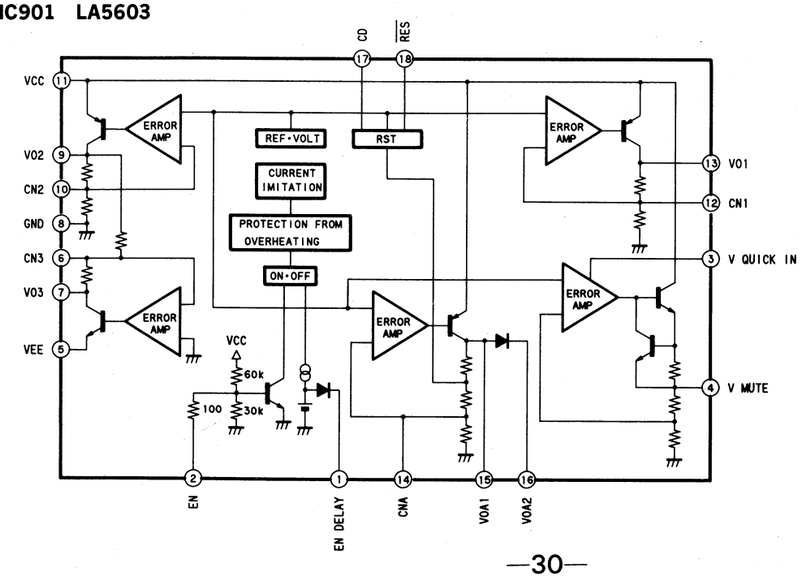
IC591 LB1639



IC701 μPC1237HA



IC901 LA5603



3-11. PIN FUNCTION OF IC501 (μPD78134GF-051-3B9)

According to keying in or remote control signal, it sets the Graphic equalizer•electronic volume (IC201), AI BC, surround, KARAOKE PON (E, AUS, EA, TR model) etc. and switches the LED and FL tube display and functions in the deck.

Pin No.	Pin name	I/O	Description
1	CLR0	I	Timer pulse input
2	+5V	I	Not in use with the equipment (+5V)
3	FL DATA	O	Serial data output to the FL tube driver (IC505, 506)
4	$\overline{\text{FL CLK}}$	O	Data transfer clock output to the FL tube driver (IC505, 506)
5	S0	I	Input port for model selection. Connected to GND with the equipment.
6	S1	I	Input port for model selection. Connected to GND (AEP, G, IT model) or +5V (E, AUS, EA, TR model) with the equipment.
7—12	+5V	I	Not in use with the equipment (+5V)
13	POT00	O	Timer pulse output (about 400μsec)
14	LED CLK	O	Data transfer clock output to the LED driver (IC507)
15	LED DATA	O	Serial data output to LED driver (IC507)
16	LED LATCH	O	Data latch output to the LED driver (IC507)
17, 18	NC	—	Not in use with the equipment (open)
19	AVSS	—	Analog system power terminal (GND)
20	AVREF	I	Analog port reference voltage input (+5V)
21, 22	KEY0, 1	I	Key input (Analog)*1
23, 24	SPE0, 1	I	Spectrum analysis data input (analog)
25	VOL DATA	I	Volume position data input (analog)
26—28	G	—	Not in use with the equipment (GND)
29	$\overline{\text{RESET}}$	I	System reset input. "L" : reset
30	VDD	—	Power terminal (+5V)
31, 32	X1, X2	—	Crystal connection terminal for system clock oscillation
33	VSS	—	Power terminal (GND)
34	SPE A	O	Spectrum analysis data input switch A
35	SPE B	O	Spectrum analysis data input switch B
36	SPE INH	O	Spectrum analysis data input switch inhibit
37	AI BC A	O	AI BC output switch A
38	AI BC B	O	AI BC output switch B
39	AI BC INH	O	AI BC output switch inhibit
40, 41	NC	—	Not in use with the equipment (open)
42	SDL	O	Clock output to E²P-ROM (IC502)
43	SDA	I/O	Data input/output (user preset memory data, etc.) with E²P-ROM (IC502)
44	BACK UP	—	Not in use with the equipment (open)
45	AU BUS IN	I	Audio bus input
46	AU BUS OUT	O	Audio bus output (tuner power ON/OFF and instruction to the function switch microcomputer in the deck)
47	NC	—	Not in use with the equipment (open)
48	VOL DOWN	O	DOWN signal output of the volume motor (RV591)
49	VOL UP	O	UP signal output of the volume motor (RV591)
50	TC-FUNC	I	Request of audio bus (FUNCTION data) from the function switch microcomputer in the deck (TC-H4700)
51	RESET	O	Reset output to the Graphic equalizer•electronic volume (IC201). "L" : reset
52	LATCH	O	Data latch output to the Graphic equalizer•electronic volume (IC201)
53	CLK	O	Data transfer clock output to the Graphic equalizer•electronic volume (IC201)
54	DATA	O	Serial data output to the Graphic equalizer•electronic volume (IC201)
55	$\overline{\text{MUTE}}$	O	Mute output
56	$\overline{\text{RY-ON}}$	O	Speaker relay control
57	POWER $\overline{\text{ON/OFF}}$	O	Power (IC901) output control. "L" : Power ON
58	NC	—	Not in use with the equipment (open)
59	SUR A	O	Surround control output switch A
60	SUR B	O	Surround control output switch B
61	SUR C	O	Surround control output switch C
62	SUR INH	O	Surround control output switch inhibit
63, 64	NC	—	Not in use with the equipment (open)
65	KARAOKE	O	Not in use with the equipment (open) (AEP, G, IT model) KARAOKE PON ON/OFF (IC302 (1/2)) control output. "H" : KARAOKE PON (E, AUS, EA, TR model)
66	NC	—	Not in use with the equipment (open)
67	VSS	—	Power terminal (GND)
68	+5V	I	Not in use with the equipment (+5V)
69—76	NC	—	Not in use with the equipment (open)
77	VDD	—	Power terminal (+5V)
78	NC	—	Not in use with the equipment (open)
79	FL LATCH	O	Data latch output to the FL tube driver (IC505, 506)
80	NC	—	Not in use with the equipment (open)

*1 Key input (analog port)

Voltage (V) / Input port	0	0.63	1.3	2.0	2.6	3.2
Pin ㉑ KEY 0	SYSTEM POWER S551	FUNCTION MAX> S552	FUNCTION <MIN S553	WAKE UP VOL SET S554	DISPLAY S555	——
Pin ㉒ KEY1	MUTING * 2 KARAOKE PON * 3 S561	DIRECT S562	MUSIC S563	T. P. O. S564	TOTAL EFFECT+ S565	TOTAL EFFECT− S566

- AUS : Australian model
  EA : Saudi Arabia model
  TR : Tourist model
  G : Germany model
  IT : Italian model

* 2 : Use on AEP, G, IT model.
* 3 : Use on E, AUS, EA, TR model.

SECTION 4
EXPLODED VIEW

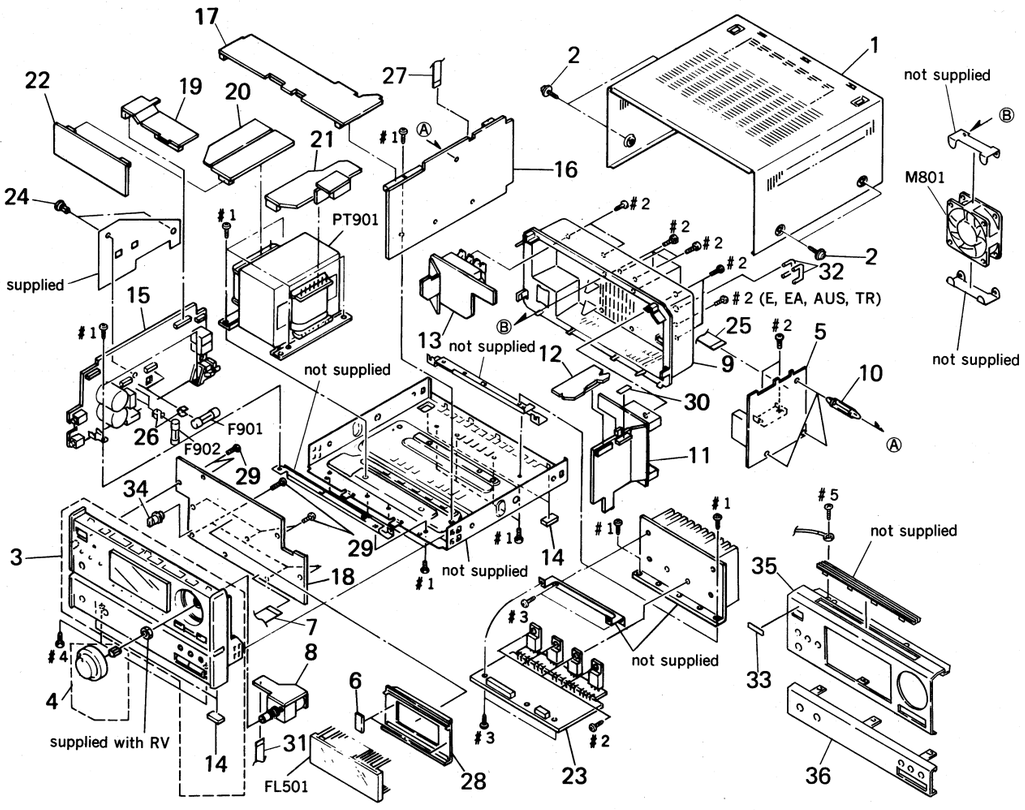
NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Color Indication of Appearance Parts
  Example :
  KNOB, BALANCE (WHITE)... (RED)
  ↑ ↑
  Parts Color Cabinet's Color
- Hardware (# mark) list is given in the last of this parts list.

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety. Replace only with part number specified.

- G : Germany model
  IT : Italian model
  AUS: Australian model
  EA : Saudi Arabia model
  TR : Tourist model

4-1. MAIN SECTION



Ref. No.	Part No.	Description	Remark
* 1	4-932-841-41	CASE	
2	3-363-099-01	SCREW (CASE +3X8 TP2)	
3	X-4942-565-1	PANEL ASSY, FRONT	
4	X-4942-472-2	KNOB (VOLUME) ASSY	
* 5	A-4347-402-A	POWER BOARD, COMPLETE	
* 6	4-932-810-11	CUSHION (FL)	
7	1-690-994-11	WIRE (FLAT TYPE) (17 CORE)	
* 8	1-643-760-11	VOLUME BOARD	
* 9	4-948-766-21	PANEL, BACK (AEP, G, IT)	
* 9	4-948-766-41	PANEL, BACK (E, AUS, EA, TR)	
* 10	4-385-948-01	HOLDER, PCB	
* 11	1-642-444-11	JACK BOARD	
* 12	1-642-447-11	CONNECTOR (A) BOARD	
* 13	1-642-445-11	SPEAKER BOARD	
14	4-930-336-21	FOOT (FELT)	
* 15	A-4347-403-A	AC BOARD, COMPLETE (AEP, AUS)	
* 15	A-4347-404-A	AC BOARD, COMPLETE (G, IT)	
* 15	A-4347-405-A	AC BOARD, COMPLETE (E, TR)	
* 15	A-4347-406-A	AC BOARD, COMPLETE (EA)	
* 16	A-4347-396-A	AUDIO BOARD, COMPLETE (AEP)	
* 16	A-4347-397-A	AUDIO BOARD, COMPLETE (G, IT)	
* 16	A-4347-398-A	AUDIO BOARD, COMPLETE (E, AUS, EA, TR)	
* 17	1-642-446-11	BRIDGE BOARD	
* 18	A-4347-399-A	PANEL BOARD, COMPLETE	
* 19	1-642-448-11	CONNECTOR (B) BOARD	
* 20	1-642-449-11	TRANSFORMER (A) BOARD	
* 21	1-642-450-11	TRANSFORMER (B) BOARD	

Ref. No.	Part No.	Description	Remark
* 22	1-642-451-11	TRANSFORMER (C) BOARD	
* 23	A-4347-400-A	POWER AMPLIFIER BOARD, COMPLETE (AEP, E, AUS, EA, TR)	
* 23	A-4347-401-A	POWER AMPLIFIER BOARD, COMPLETE (G, IT)	
24	4-812-134-11	RIVET NYLON, 3.5	
25	1-690-993-11	WIRE (FLAT TYPE) (13 CORE)	
* 26	1-533-213-31	HOLDER, FUSE	
27	1-690-992-11	WIRE (FLAT TYPE) (7 CORE)	
* 28	4-951-235-01	HOLDER (FL TUBE)	
29	4-951-620-01	SCREW (2.6X8), +BVTP	
30	9-911-835-XX	SPACER	
31	1-590-240-11	WIRE, FLAT TYPE (7 CORE)	
32	1-535-706-11	PLUG, JUMPER (E, AUS, EA, TR)	
33	4-942-636-01	EMBLEM (NO.3.5), SONY	
34	4-950-897-11	KNOB (MIC LEVEL)	
35	X-4942-566-1	PANEL (UPPER) ASSY, FRONT (AEP, G, IT)	
35	X-4942-567-1	PANEL (UPPER) ASSY, FRONT (E, AUS, EA, TR)	
36	4-951-225-21	PANEL (LOWER), FRONT (AEP, G, IT)	
36	4-951-225-31	PANEL (LOWER), FRONT (E, AUS, EA, TR)	
⚠F901	1-532-259-00	FUSE (T1.6A)	
⚠F902	1-532-237-00	FUSE, TIME LAG (T3.15A) (E, EA, TR)	
FL501	1-519-720-21	INDICATOR TUBE, FLUORESCENT	
M801	1-541-953-11	MOTOR, DC FAN	
⚠PT901	1-450-893-11	TRANSFORMER, POWER (AEP, G, IT)	
⚠PT901	1-450-894-11	TRANSFORMER, POWER (AUS)	
⚠PT901	1-450-895-21	TRANSFORMER, POWER (E, EA, TR)	

SECTION 5
ELECTRICAL PARTS LIST

AC PANEL POWER
POWER AMPLIFIER VOLUME

NOTE:
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- RESISTORS
  All resistors are in ohms.
  METAL:Metal-film resistor.
  METAL OXIDE: Metal oxide-film resistor.
  F:nonflammable
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- SEMICONDUCTORS
  In each case, u:μ, for example:
  uA..: μA.. uPA..: μPA..
  uPB..: μPB.. uPC..: μPC.. uPD..: μPD..
- CAPACITORS
  uF: μF
- COILS
  uH: μH

When indicating parts by reference number, please include the board.

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety.
Replace only with part number specified.

- AUS: Australian model
  G : Germany model
  IT : Italian model
  TR : Tourist model
  EA : Saudi Arabia model

Ref. No.	Part No.	Description			Remark
*	A-4347-403-A	AC BOARD, COMPLETE (AEP, AUS)			
*	A-4347-404-A	AC BOARD, COMPLETE (G, IT)			
*	A-4347-405-A	AC BOARD, COMPLETE (E, TR)			
*	A-4347-406-A	AC BOARD, COMPLETE (EA)			
		**********			
*	A-4347-399-A	PANEL BOARD, COMPLETE			
		**********			
*	A-4347-402-A	POWER BOARD, COMPLETE			
		**********			
*	A-4347-400-A	POWER AMPLIFIER BOARD, COMPLETE (AEP, E, AUS, EA, TR)			
*	A-4347-401-A	POWER AMPLIFIER BOARD, COMPLETE (G, IT)			
		**********			
*	1-643-760-11	VOLUME BOARD			
		**********			
*	1-533-213-31	HOLDER, FUSE			
*	4-932-810-11	CUSHION (FL)			
*	4-951-235-01	HOLDER (FL TUBE)			
	7-685-647-79	SCREW +BVTP 3X10 TYPE2 IT-3			
		< CAPACITOR >			
C551	1-124-443-00	ELECT	100uF	20%	10V
C552	1-124-261-00	ELECT	10uF	20%	50V
C553	1-161-379-00	CERAMIC	0.01uF	20%	25V
C554	1-164-159-11	CERAMIC	0.1uF		50V
C555	1-161-379-00	CERAMIC	0.01uF	20%	25V
C556	1-164-159-11	CERAMIC	0.1uF		50V
C557	1-126-923-11	ELECT	220uF	20%	10V
C558	1-164-159-11	CERAMIC	0.1uF		50V
C559	1-164-159-11	CERAMIC	0.1uF		50V
C560	1-161-379-00	CERAMIC	0.01uF	20%	25V
C561	1-161-379-00	CERAMIC	0.01uF	20%	25V
C562	1-124-261-00	ELECT	10uF	20%	50V
C563	1-126-923-11	ELECT	220uF	20%	10V
C591	1-124-443-00	ELECT	100uF	20%	10V
C592	1-124-907-11	ELECT	10uF	20%	50V
C593	1-124-907-11	ELECT	10uF	20%	50V
C608	1-161-379-00	CERAMIC	0.01uF	20%	25V
		(AEP, E, AUS, EA, TR)			
C608	1-164-159-11	CERAMIC	0.1uF		50V (G, IT)
C611	1-162-294-31	CERAMIC	0.001uF	10%	50V
C612	1-124-903-11	ELECT	1uF	20%	50V
C613	1-162-294-31	CERAMIC	0.001uF	10%	50V
C614	1-124-903-11	ELECT	1uF	20%	50V
C615	1-124-443-00	ELECT	100uF	20%	10V
C616	1-161-379-00	CERAMIC	0.01uF	20%	25V
C617	1-164-159-11	CERAMIC	0.1uF		50V
C621	1-162-294-31	CERAMIC	0.001uF	10%	50V
C622	1-124-903-11	ELECT	1uF	20%	50V
C623	1-126-948-11	ELECT	100uF	20%	35V
C624	1-161-379-00	CERAMIC	0.01uF	20%	25V
C625	1-124-903-11	ELECT	1uF	20%	50V
C658	1-161-379-00	CERAMIC	0.01uF	20%	25V
		(AEP, E, AUS, EA, TR)			
C658	1-164-159-11	CERAMIC	0.1uF		50V (G, IT)
C690	1-164-159-11	CERAMIC	0.1uF		50V
C702	1-126-176-11	ELECT	220uF	20%	10V
C704	1-162-306-11	CERAMIC	0.01uF	20%	16V
C706	1-124-927-11	ELECT	4.7uF	20%	100V
C707	1-124-478-11	ELECT	100uF	20%	25V
C708	1-124-907-11	ELECT	10uF	20%	50V
C709	1-164-159-11	CERAMIC	0.1uF		50V
C710	1-124-910-11	ELECT	47uF	20%	50V
C711	1-164-159-11	CERAMIC	0.1uF		50V
C712	1-164-159-11	CERAMIC	0.1uF		50V
C801	1-124-907-11	ELECT	10uF	20%	50V
C802	1-162-282-31	CERAMIC	100PF	10%	50V
C803	1-162-282-31	CERAMIC	100PF	10%	50V
C804	1-124-443-00	ELECT	100uF	20%	10V
C806	1-136-165-00	FILM	0.1uF	5%	50V
C807	1-136-165-00	FILM	0.1uF	5%	50V
C808	1-136-165-00	FILM	0.1uF	5%	50V
C809	1-136-165-00	FILM	0.1uF	5%	50V
C811	1-164-159-11	CERAMIC	0.1uF		50V
C821	1-124-907-11	ELECT	10uF	20%	50V
C822	1-162-282-31	CERAMIC	100PF	10%	50V
C823	1-162-282-31	CERAMIC	100PF	10%	50V
C824	1-124-443-00	ELECT	100uF	20%	10V
C828	1-136-165-00	FILM	0.1uF	5%	50V
C829	1-136-165-00	FILM	0.1uF	5%	50V
C831	1-164-159-11	CERAMIC	0.1uF		50V (G, IT)
C851	1-124-907-11	ELECT	10uF	20%	50V

AC PANEL POWER POWER AMPLIFIER VOLUME

Ref. No.	Part No.	Description			Remark
C852	1-162-282-31	CERAMIC	100PF	10%	50V
C853	1-162-282-31	CERAMIC	100PF	10%	50V
C854	1-124-443-00	ELECT	100uF	20%	10V
C856	1-136-165-00	FILM	0.1uF	5%	50V
C857	1-136-165-00	FILM	0.1uF	5%	50V
C858	1-136-165-00	FILM	0.1uF	5%	50V
C859	1-136-165-00	FILM	0.1uF	5%	50V
C861	1-164-159-11	CERAMIC	0.1uF		50V
C871	1-124-907-11	ELECT	10uF	20%	50V
C872	1-162-282-31	CERAMIC	100PF	10%	50V
C873	1-162-282-31	CERAMIC	100PF	10%	50V
C874	1-124-443-00	ELECT	100uF	20%	10V
C878	1-136-165-00	FILM	0.1uF	5%	50V
C879	1-136-165-00	FILM	0.1uF	5%	50V
C881	1-164-159-11	CERAMIC	0.1uF		50V
C901	1-126-224-11	ELECT	4700uF	20%	42V
C902	1-126-224-11	ELECT	4700uF	20%	42V
C903	1-136-171-00	FILM	0.33uF	5%	50V
C904	1-136-171-00	FILM	0.33uF	5%	50V
C911	1-124-563-11	ELECT	2200uF	20%	25V
C912	1-124-563-11	ELECT	2200uF	20%	25V
C913	1-136-165-00	FILM	0.1uF	5%	50V
C914	1-136-165-00	FILM	0.1uF	5%	50V
C920	1-164-159-11	CERAMIC	0.1uF		50V
C921	1-124-903-11	ELECT	1uF	20%	50V
C922	1-124-443-00	ELECT	100uF	20%	10V
C923	1-124-903-11	ELECT	1uF	20%	50V
C924	1-124-443-00	ELECT	100uF	20%	10V
C925	1-124-903-11	ELECT	1uF	20%	50V
C926	1-124-443-00	ELECT	100uF	20%	10V
C927	1-124-903-11	ELECT	1uF	20%	50V
C928	1-124-443-00	ELECT	100uF	20%	10V
C929	1-124-903-11	ELECT	1uF	20%	50V
C930	1-124-907-11	ELECT	10uF	20%	50V
C931	1-126-105-11	ELECT	1000uF	20%	35V
C932	1-126-105-11	ELECT	1000uF	20%	35V
C933	1-124-907-11	ELECT	10uF	20%	50V
C934	1-124-477-11	ELECT	47uF	20%	25V
C941	1-124-122-11	ELECT	100uF	20%	50V
C942	1-124-907-11	ELECT	10uF	20%	50V
C943	1-124-907-11	ELECT	10uF	20%	50V
C944	1-124-903-11	ELECT	1uF	20%	50V
C951	1-124-122-11	ELECT	100uF	20%	50V
C952	1-124-907-11	ELECT	10uF	20%	50V
C953	1-124-907-11	ELECT	10uF	20%	50V
C954	1-164-159-11	CERAMIC	0.1uF		50V
C961	1-124-477-11	ELECT	47uF	20%	25V

Ref. No.	Part No.	Description	Remark
		< CONNECTOR >	
* CN301	1-569-505-11	PIN, CONNECTOR 10P	
* CN302	1-568-832-11	SOCKET, CONNECTOR 13P	
CN303	1-573-826-11	CONNECTOR, BOARD TO BOARD 12P	
* CN551	1-568-836-11	SOCKET, CONNECTOR 17P	
* CN591	1-568-826-11	SOCKET, CONNECTOR 7P	
* CN801	1-568-850-11	SOCKET, CONNECTOR 7P	
* CN802	1-573-087-11	PIN, CONNECTOR 13P	
* CN831	1-573-087-11	PIN, CONNECTOR 13P	
CN832	1-566-128-11	CONNECTOR, BOARD TO BOARD 10P	
⚠CN901	1-526-930-11	INLET, AC (~ AC IN)	(E, TR)
⚠CN901	1-526-931-11	INLET, AC (~ AC IN)	(AEP, G, IT, AUS, EA)
* CN902	1-580-940-11	PIN, CONNECTOR 4P	
* CN903	1-580-940-11	PIN, CONNECTOR 4P	(E, EA, TR)
* CN904	1-569-502-11	PIN, CONNECTOR 7P	
CN905	1-573-826-11	CONNECTOR, BOARD TO BOARD 12P	
		< DIODE >	
D551	8-719-987-63	DIODE 1N4148M	
D571	8-719-301-37	LED SEL2210S-CD	(ON/STANDBY)
D572	8-719-301-37	LED SEL2210S-CD	(WAKE UP VOL SET)
D573	8-719-301-37	LED SEL2210S-CD	(MUTING) (AEP, G, IT)
D573	8-719-301-37	LED SEL2210S-CD	(KARAOKE PON) (E, AUS, EA, TR)
D574	8-719-301-37	LED SEL2210S-CD	(PHONO)
D575	8-719-301-37	LED SEL2210S-CD	(TUNER)
D576	8-719-301-37	LED SEL2210S-CD	(CD)
D577	8-719-301-37	LED SEL2210S-CD	(DAT)
D578	8-719-301-37	LED SEL2210S-CD	(TAPE)
D579	8-719-301-37	LED SEL2210S-CD	(VIDEO)
D591	8-719-987-63	DIODE 1N4148M	
D703	8-719-987-63	DIODE 1N4148M	
D704	8-719-987-63	DIODE 1N4148M	
D705	8-719-987-63	DIODE 1N4148M	
D706	8-719-987-63	DIODE 1N4148M	
D791	8-719-987-63	DIODE 1N4148M	
D800	8-719-987-63	DIODE 1N4148M	
D801	8-719-987-63	DIODE 1N4148M	
D802	8-719-987-63	DIODE 1N4148M	
D821	8-719-987-63	DIODE 1N4148M	
D822	8-719-987-63	DIODE 1N4148M	
D851	8-719-987-63	DIODE 1N4148M	
D852	8-719-987-63	DIODE 1N4148M	
D871	8-719-987-63	DIODE 1N4148M	
D872	8-719-987-63	DIODE 1N4148M	
D901	8-719-302-38	DIODE RBV-602-01	
D902	8-719-987-63	DIODE 1N4148M	
D903	8-719-987-63	DIODE 1N4148M	
D911	8-719-200-82	DIODE 11ES2	

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

AC PANEL POWER POWER AMPLIFIER VOLUME

Ref. No.	Part No.	Description	Remark
D912	8-719-200-82	DIODE 11ES2	
D913	8-719-200-82	DIODE 11ES2	
D914	8-719-200-82	DIODE 11ES2	
D931	8-719-200-82	DIODE 11ES2	
D932	8-719-200-82	DIODE 11ES2	
D941	8-719-200-82	DIODE 11ES2	
D942	8-719-002-67	DIODE UZL-33H	
D943	8-719-987-63	DIODE 1N4148M	
D944	8-719-987-63	DIODE 1N4148M	
D951	8-719-200-82	DIODE 11ES2	
D952	8-719-934-22	DIODE HZS30-2L	
D953	8-719-933-33	DIODE HZS6A1L	
D961	8-719-987-63	DIODE 1N4148M	
D962	8-719-987-63	DIODE 1N4148M	
		< FLUORESCENT INDICATOR >	
FL501	1-519-720-21	INDICATOR TUBE, FLUORESCENT	
		< IC >	
IC505	8-759-512-44	IC SN755703	
IC506	8-759-512-44	IC SN755703	
IC507	8-759-636-56	IC M66311FP	
IC508	8-759-916-14	IC SN74HC04N	
IC591	8-759-820-62	IC LB1639	
IC701	8-759-111-68	IC uPC1237HA	
IC702	8-759-987-16	IC LM393P	
IC703	8-759-512-73	IC LM35DZ-SL	
IC801	8-759-069-56	IC LM3875-Q	
IC821	8-759-069-56	IC LM3875-Q	
IC851	8-759-069-56	IC LM3875-Q	
IC871	8-759-069-56	IC LM3875-Q	
IC901	8-759-823-46	IC LA5603	
IC902	8-759-604-39	IC AN6291	
		< JACK >	
J601	1-562-837-21	JACK (HEADPHONES)	
J611	1-562-837-21	JACK (MIX MIC)	
		< COIL >	
* L801	1-420-872-00	COIL, AIR CORE	
* L821	1-420-872-00	COIL, AIR CORE	
* L851	1-420-872-00	COIL, AIR CORE	
* L871	1-420-872-00	COIL, AIR CORE	
		< LINE FILTER >	
⚠LF901	1-424-485-11	FILTER, LINE (G, IT)	

Ref. No.	Part No.	Description	Remark
		< TRANSISTOR >	
Q611	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q612	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q621	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q701	8-729-119-76	TRANSISTOR 2SA1175-HFE	
Q781	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q791	8-729-118-01	TRANSISTOR 2SB1116	
Q792	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q801	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q821	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q841	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q851	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q871	8-729-140-84	TRANSISTOR 2SC1841-PAFAEA	
Q921	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q941	8-729-111-29	TRANSISTOR 2SD1616A-K	
Q942	8-729-620-05	TRANSISTOR 2SC2603-EF	
Q943	8-729-111-29	TRANSISTOR 2SD1616A-K	
Q951	8-729-118-01	TRANSISTOR 2SB1116	
Q961	8-729-111-29	TRANSISTOR 2SD1616A-K	
		< RESISTOR >	
R551	1-249-423-11	CARBON 3.3K 5% 1/4W	
R552	1-249-413-11	CARBON 470 5% 1/4W	
R553	1-249-415-11	CARBON 680 5% 1/4W	
R554	1-249-417-11	CARBON 1K 5% 1/4W	
R555	1-249-419-11	CARBON 1.5K 5% 1/4W	
R561	1-249-423-11	CARBON 3.3K 5% 1/4W	
R562	1-249-413-11	CARBON 470 5% 1/4W	
R563	1-249-415-11	CARBON 680 5% 1/4W	
R564	1-249-417-11	CARBON 1K 5% 1/4W	
R565	1-249-419-11	CARBON 1.5K 5% 1/4W	
R566	1-249-421-11	CARBON 2.2K 5% 1/4W	
R571	1-249-411-11	CARBON 330 5% 1/4W	
R572	1-249-411-11	CARBON 330 5% 1/4W	
R573	1-249-411-11	CARBON 330 5% 1/4W	
R574	1-249-411-11	CARBON 330 5% 1/4W	
R581	1-249-417-11	CARBON 1K 5% 1/4W	
R582	1-249-417-11	CARBON 1K 5% 1/4W	
R583	1-249-417-11	CARBON 1K 5% 1/4W	
R584	1-249-417-11	CARBON 1K 5% 1/4W	
R585	1-249-417-11	CARBON 1K 5% 1/4W	
R586	1-249-417-11	CARBON 1K 5% 1/4W	
R587	1-249-417-11	CARBON 1K 5% 1/4W	
R588	1-249-441-11	CARBON 100K 5% 1/4W	
R589	1-249-417-11	CARBON 1K 5% 1/4W	
R591	1-249-417-11	CARBON 1K 5% 1/4W	
R592	1-249-417-11	CARBON 1K 5% 1/4W	
R593	1-249-414-11	CARBON 560 5% 1/4W	

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety. Replace only with part number specified.

AC PANEL POWER POWER AMPLIFIER VOLUME

Ref. No.	Part No.	Description			Remark
R594	1-249-431-11	CARBON	15K	5%	1/4W
R608	1-249-399-11	CARBON	33	5%	1/4W
R611	1-249-429-11	CARBON	10K	5%	1/4W
R612	1-249-417-11	CARBON	1K	5%	1/4W
R613	1-249-417-11	CARBON	1K	5%	1/4W
R614	1-247-895-00	CARBON	470K	5%	1/4W
R615	1-249-425-11	CARBON	4.7K	5%	1/4W
R616	1-249-417-11	CARBON	1K	5%	1/4W
R617	1-249-441-11	CARBON	100K	5%	1/4W
R619	1-249-429-11	CARBON	10K	5%	1/4W
R621	1-247-899-11	CARBON	680K	5%	1/4W
R622	1-249-421-11	CARBON	2.2K	5%	1/4W
R623	1-249-405-11	CARBON	100	5%	1/4W
R624	1-249-429-11	CARBON	10K	5%	1/4W
R625	1-249-415-11	CARBON	680	5%	1/4W
R658	1-249-399-11	CARBON	33	5%	1/4W
R701	1-249-433-11	CARBON	22K	5%	1/4W
R702	1-249-441-11	CARBON	100K	5%	1/4W
R703	1-249-433-11	CARBON	22K	5%	1/4W
R704	1-249-433-11	CARBON	22K	5%	1/4W
R705	1-249-429-11	CARBON	10K	5%	1/4W
R706	1-249-441-11	CARBON	100K	5%	1/4W
R707	1-249-429-11	CARBON	10K	5%	1/4W
R708	1-249-424-11	CARBON	3.9K	5%	1/4W
R709	1-249-427-11	CARBON	6.8K	5%	1/4W
R710	1-249-429-11	CARBON	10K	5%	1/4W
R711	1-249-417-11	CARBON	1K	5%	1/4W
R712	1-249-436-11	CARBON	39K	5%	1/4W
R713	1-249-441-11	CARBON	100K	5%	1/4W
R714	1-249-417-11	CARBON	1K	5%	1/4W
⚠R715	1-212-857-00	FUSIBLE	10	5%	1/4W F
⚠R717	1-212-982-00	FUSIBLE	100	5%	1/2W F
R781	1-249-429-11	CARBON	10K	5%	1/4W
R782	1-249-405-11	CARBON	100	5%	1/4W
R791	1-249-417-11	CARBON	1K	5%	1/4W
R792	1-249-429-11	CARBON	10K	5%	1/4W
R793	1-249-441-11	CARBON	100K	5%	1/4W
R794	1-249-433-11	CARBON	22K	5%	1/4W
⚠R800	1-212-982-00	FUSIBLE	100	5%	1/2W F
R801	1-249-417-11	CARBON	1K	5%	1/4W
R802	1-249-429-11	CARBON	10K	5%	1/4W
R803	1-249-417-11	CARBON	1K	5%	1/4W
R804	1-249-429-11	CARBON	10K	5%	1/4W
⚠R805	1-217-151-00	RES, METAL PLATE	0.22		2W
R806	1-249-417-11	CARBON	1K	5%	1/4W
R807	1-249-431-11	CARBON	15K	5%	1/4W
R808	1-249-441-11	CARBON	100K	5%	1/4W
⚠R809	1-212-958-00	FUSIBLE	10	5%	1/2W F
R810	1-249-439-11	CARBON	68K	5%	1/4W

Ref. No.	Part No.	Description			Remark
R811	1-249-429-11	CARBON	10K	5%	1/4W
R821	1-249-417-11	CARBON	1K	5%	1/4W
R822	1-249-429-11	CARBON	10K	5%	1/4W
R823	1-249-414-11	CARBON	560	5%	1/4W
R824	1-249-429-11	CARBON	10K	5%	1/4W
⚠R825	1-217-151-00	RES, METAL PLATE	0.22		2W
R826	1-249-417-11	CARBON	1K	5%	1/4W
R827	1-249-431-11	CARBON	15K	5%	1/4W
R828	1-249-441-11	CARBON	100K	5%	1/4W
⚠R829	1-212-958-00	FUSIBLE	10	5%	1/2W F
R830	1-249-437-11	CARBON	47K	5%	1/4W
R831	1-249-429-11	CARBON	10K	5%	1/4W
R841	1-249-441-11	CARBON	100K	5%	1/4W
R842	1-249-405-11	CARBON	100	5%	1/4W
R851	1-249-417-11	CARBON	1K	5%	1/4W
R852	1-249-429-11	CARBON	10K	5%	1/4W
R853	1-249-417-11	CARBON	1K	5%	1/4W
R854	1-249-429-11	CARBON	10K	5%	1/4W
⚠R855	1-217-151-00	RES, METAL PLATE	0.22		2W
R856	1-249-417-11	CARBON	1K	5%	1/4W
R857	1-249-431-11	CARBON	15K	5%	1/4W
R858	1-249-441-11	CARBON	100K	5%	1/4W
⚠R859	1-212-958-00	FUSIBLE	10	5%	1/2W F
R860	1-249-438-11	CARBON	56K	5%	1/4W
R861	1-249-429-11	CARBON	10K	5%	1/4W
R871	1-249-417-11	CARBON	1K	5%	1/4W
R872	1-249-429-11	CARBON	10K	5%	1/4W
R873	1-249-414-11	CARBON	560	5%	1/4W
R874	1-249-429-11	CARBON	10K	5%	1/4W
⚠R875	1-217-151-00	RES, METAL PLATE	0.22		2W
R876	1-249-417-11	CARBON	1K	5%	1/4W
R877	1-249-431-11	CARBON	15K	5%	1/4W
R878	1-249-441-11	CARBON	100K	5%	1/4W
⚠R879	1-212-958-00	FUSIBLE	10	5%	1/2W F
R880	1-249-436-11	CARBON	39K	5%	1/4W
R881	1-249-429-11	CARBON	10K	5%	1/4W
R902	1-249-429-11	CARBON	10K	5%	1/4W
⚠R911	1-219-134-11	FUSIBLE	0.1	5%	1/4W F
⚠R912	1-219-134-11	FUSIBLE	0.1	5%	1/4W F
R921	1-249-437-11	CARBON	47K	5%	1/4W
R922	1-249-405-11	CARBON	100	5%	1/4W
R923	1-249-429-11	CARBON	10K	5%	1/4W
R941	1-249-429-11	CARBON	10K	5%	1/4W
⚠R942	1-212-942-00	FUSIBLE	2.2	5%	1/2W F
R943	1-249-417-11	CARBON	1K	5%	1/4W
R944	1-249-429-11	CARBON	10K	5%	1/4W
R945	1-249-441-11	CARBON	100K	5%	1/4W
R946	1-249-441-11	CARBON	100K	5%	1/4W
R947	1-249-417-11	CARBON	1K	5%	1/4W

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

AC PANEL POWER POWER AMPLIFIER VOLUME AUDIO

Ref. No.	Part No.	Description			Remark
R951	1-249-429-11	CARBON	10K	5%	1/4W
R952	1-249-425-11	CARBON	4.7K	5%	1/4W
R953	1-249-405-11	CARBON	100	5%	1/4W
R961	1-249-429-11	CARBON	10K	5%	1/4W
		< VARIABLE RESISTOR >			
RV591	1-241-803-11	RES, VAR, CARBON (WITH MOTOR) 10K (VOLUME)			
RV621	1-241-813-11	RES, VAR, CARBON 50K (MIC LEVEL)			
		< RELAY >			
RY801	1-515-790-11	RELAY			
RY802	1-515-790-11	RELAY			
RY901	1-515-626-11	RELAY			
RY902	1-515-626-11	RELAY			
		< SWITCH >			
S551	1-554-303-21	SWITCH, TACTILE (SYSTEM POWER)			
S552	1-554-303-21	SWITCH, TACTILE (FUNCTION MAX >)			
S553	1-554-303-21	SWITCH, TACTILE (FUNCTION < MIN)			
S554	1-554-303-21	SWITCH, TACTILE (WAKE UP VOL SET)			
S555	1-554-303-21	SWITCH, TACTILE (DISPLAY)			
S561	1-554-303-21	SWITCH, TACTILE (MUTING) (AEP, G, IT)			
S561	1-554-303-21	SWITCH, TACTILE (KARAOKE PON) (E, AUS, EA, TR)			
S562	1-554-303-21	SWITCH, TACTILE (DIRECT)			
S563	1-554-303-21	SWITCH, TACTILE (MUSIC)			
S564	1-554-303-21	SWITCH, TACTILE (T. P. O.)			
S565	1-554-303-21	SWITCH, TACTILE (TOTAL EFFECT CONTROL +)			
S566	1-554-303-21	SWITCH, TACTILE (TOTAL EFFECT CONTROL -)			
⚠S901	1-572-009-21	SELECTOR, VOLTAGE (VOLTAGE SELECTOR) (E, EA, TR)			
**********					
*	A-4347-396-A	AUDIO BOARD, COMPLETE (AEP)			
*	A-4347-397-A	AUDIO BOARD, COMPLETE (G, IT)			
*	A-4347-398-A	AUDIO BOARD, COMPLETE (E, AUS, EA, TR)			
		**********			
		< CAPACITOR >			
C101	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C102	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C103	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C111	1-164-346-11	CERAMIC CHIP (E, AUS, EA, TR)	1uF		16V
C112	1-164-182-11	CERAMIC CHIP (E, AUS, EA, TR)	0.0033uF	10%	50V
C113	1-163-019-00	CERAMIC CHIP (E, AUS, EA, TR)	0.0068uF	10%	50V
C114	1-163-031-11	CERAMIC CHIP (E, AUS, EA, TR)	0.01uF		50V
C115	1-163-031-11	CERAMIC CHIP (E, AUS, EA, TR)	0.01uF		50V
C121	1-164-346-11	CERAMIC CHIP	1uF		16V
C122	1-164-346-11	CERAMIC CHIP	1uF		16V
C123	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C124	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C141	1-126-157-11	ELECT	10uF	20%	16V
C151	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C152	1-163-109-00	CERAMIC CHIP	47PF	5%	50V
C153	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C161	1-164-346-11	CERAMIC CHIP (E, AUS, EA, TR)	1uF		16V
C162	1-164-182-11	CERAMIC CHIP (E, AUS, EA, TR)	0.0033uF	10%	50V
C163	1-163-019-00	CERAMIC CHIP (E, AUS, EA, TR)	0.0068uF	10%	50V
C201	1-124-907-11	ELECT	10uF	20%	50V
C202	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C203	1-124-907-11	ELECT	10uF	20%	50V
C204	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C205	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C206	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C207	1-164-346-11	CERAMIC CHIP	1uF		16V
C208	1-164-346-11	CERAMIC CHIP	1uF		16V
C210	1-124-443-00	ELECT	100uF	20%	10V
C211	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C212	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C213	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C214	1-163-024-00	CERAMIC CHIP	0.018uF	10%	50V
C215	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C216	1-163-014-00	CERAMIC CHIP	0.0027uF	10%	50V
C217	1-163-010-11	CERAMIC CHIP	0.0012uF	10%	50V
C221	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C222	1-164-343-11	CERAMIC CHIP	0.056uF	10%	25V
C223	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C224	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C225	1-163-016-00	CERAMIC CHIP	0.0039uF	10%	50V
C226	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V
C227	1-163-007-11	CERAMIC CHIP	680PF	10%	50V
C231	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C232	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C233	1-124-443-00	ELECT	100uF	20%	10V
C234	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C251	1-124-907-11	ELECT	10uF	20%	50V
C252	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C253	1-124-907-11	ELECT	10uF	20%	50V
C254	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C255	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C256	1-163-117-00	CERAMIC CHIP	100PF	5%	50V

The components identified by mark ⚠ or dotted line with mark. ⚠ are critical for safety. Replace only with part number specified.

AUDIO

Ref. No.	Part No.	Description			Remark
C257	1-164-346-11	CERAMIC CHIP	1uF		16V
C258	1-164-346-11	CERAMIC CHIP	1uF		16V
C261	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C262	1-164-004-11	CERAMIC CHIP	0.1uF	10%	25V
C263	1-163-809-11	CERAMIC CHIP	0.047uF	10%	25V
C264	1-163-024-00	CERAMIC CHIP	0.018uF	10%	50V
C265	1-163-019-00	CERAMIC CHIP	0.0068uF	10%	50V
C266	1-163-014-00	CERAMIC CHIP	0.0027uF	10%	50V
C267	1-163-010-11	CERAMIC CHIP	0.0012uF	10%	50V
C271	1-164-489-11	CERAMIC CHIP	0.22uF	10%	16V
C272	1-164-343-11	CERAMIC CHIP	0.056uF	10%	25V
C273	1-163-037-11	CERAMIC CHIP	0.022uF	10%	25V
C274	1-164-232-11	CERAMIC CHIP	0.01uF		50V
C275	1-163-016-00	CERAMIC CHIP	0.0039uF	10%	50V
C276	1-163-011-11	CERAMIC CHIP	0.0015uF	10%	50V
C277	1-163-007-11	CERAMIC CHIP	680PF	10%	50V
C281	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C282	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C291	1-124-443-00	ELECT	100uF	20%	10V
C292	1-124-443-00	ELECT	100uF	20%	10V
C293	1-124-443-00	ELECT	100uF	20%	10V
C294	1-124-443-00	ELECT	100uF	20%	10V
C295	1-124-443-00	ELECT	100uF	20%	10V
C301	1-136-165-00	FILM	0.1uF	5%	50V
C302	1-136-165-00	FILM	0.1uF	5%	50V
C304	1-124-903-11	ELECT	1uF	20%	50V
C307	1-124-443-00	ELECT	100uF	20%	10V
C310	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C311	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C331	1-124-463-00	ELECT	0.1uF	20%	50V
C340	1-124-907-11	ELECT	10uF	20%	50V
C351	1-136-165-00	FILM	0.1uF	5%	50V
C352	1-136-165-00	FILM	0.1uF	5%	50V
C354	1-124-903-11	ELECT	1uF	20%	50V
C357	1-124-443-00	ELECT	100uF	20%	10V
C360	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C361	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C390	1-124-907-11	ELECT	10uF	20%	50V
C411	1-136-157-00	FILM	0.022uF	5%	50V
C412	1-136-157-00	FILM	0.022uF	5%	50V
C413	1-163-001-11	CERAMIC CHIP	220PF	10%	50V (G, IT)
C413	1-163-101-00	CERAMIC CHIP (AEP, E, AUS, EA, TR)	22PF	5%	50V
C414	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C415	1-136-165-00	FILM	0.1uF	5%	50V
C423	1-136-165-00	FILM	0.1uF	5%	50V
C424	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C425	1-124-907-11	ELECT	10uF	20%	50V
C461	1-136-157-00	FILM	0.022uF	5%	50V
C462	1-136-157-00	FILM	0.022uF	5%	50V
C463	1-163-001-11	CERAMIC CHIP	220PF	10%	50V (G, IT)
C463	1-163-101-00	CERAMIC CHIP (AEP, E, AUS, EA, TR)	22PF	5%	50V
C464	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C465	1-136-165-00	FILM	0.1uF	5%	50V
C473	1-136-165-00	FILM	0.1uF	5%	50V
C474	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C475	1-124-907-11	ELECT	10uF	20%	50V
C501	1-124-443-00	ELECT	100uF	20%	10V
C502	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C503	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C504	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C505	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C506	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C511	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C512	1-124-443-00	ELECT	100uF	20%	10V
C513	1-124-443-00	ELECT	100uF	20%	10V
C514	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C515	1-163-031-11	CERAMIC CHIP	0.01uF		50V
C521	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C522	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C523	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C524	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C525	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C526	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C531	1-163-001-11	CERAMIC CHIP	220PF	10%	50V
C541	1-124-443-00	ELECT	100uF	20%	10V
C542	1-163-009-11	CERAMIC CHIP	0.001uF	10%	50V
C543	1-163-038-00	CERAMIC CHIP	0.1uF		25V
C601	1-124-907-11	ELECT	10uF	20%	50V
C602	1-124-443-00	ELECT	100uF	20%	10V
C603	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C604	1-126-926-11	ELECT	1000uF	20%	10V
C605	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C607	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C651	1-124-907-11	ELECT	10uF	20%	50V
C652	1-124-443-00	ELECT	100uF	20%	10V
C653	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C654	1-126-926-11	ELECT	1000uF	20%	10V
C655	1-163-117-00	CERAMIC CHIP	100PF	5%	50V
C657	1-163-117-00	CERAMIC CHIP	100PF	5%	50V

< CONNECTOR >

CN201	1-566-128-11	CONNECTOR, BOARD TO BOARD 10P	
CN202	1-568-437-11	SOCKET, CONNECTOR 7P	
* CN203	1-568-832-11	SOCKET, CONNECTOR 13P	
CN204	1-573-826-11	CONNECTOR, BOARD TO BOARD 12P	
CN205	1-573-826-11	CONNECTOR, BOARD TO BOARD 12P	

Ref. No.	Part No.	Description	Remark
		< DIODE >	
D231	8-719-801-78	DIODE 1SS184	
D291	8-719-801-78	DIODE 1SS184	
D292	8-719-801-78	DIODE 1SS184	
D341	8-719-801-78	DIODE 1SS184	
D342	8-719-801-78	DIODE 1SS184	
D501	8-719-801-78	DIODE 1SS184	
D502	8-719-801-78	DIODE 1SS184	
D503	8-719-801-78	DIODE 1SS184	
D504	8-719-801-78	DIODE 1SS184	
D511	8-719-801-78	DIODE 1SS184	
D512	8-719-801-78	DIODE 1SS184	
D541	8-719-801-78	DIODE 1SS184	
D601	8-719-801-78	DIODE 1SS184	
		< IC >	
IC101	8-759-636-55	IC M5218AFP	
IC102	8-759-516-43	IC CD4053BCM (E, AUS, EA, TR)	
IC103	8-759-516-39	IC CD4051BCM	
IC201	8-759-636-57	IC CXA1492Q	
IC301	8-759-636-55	IC M5218AFP	
IC302	8-759-516-43	IC CD4053BCM	
IC303	8-759-516-41	IC CD4052BCM	
IC411	8-759-636-55	IC M5218AFP	
IC421	8-759-636-55	IC M5218AFP	
IC501	8-759-074-78	IC uPD78134GF-051-3B9	
IC502	8-759-500-31	IC X24C01P	
IC503	8-759-516-41	IC CD4052BCM	
IC504	8-759-991-11	IC XR1091DCP	
IC601	8-759-636-55	IC M5218AFP	
		< JUMPER RESISTOR >	
JR1	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR2	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR5	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR6	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR7	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR8	1-216-296-00	METAL CHIP 0 5% 1/8W	
JR501	1-216-295-00	METAL CHIP 0 5% 1/10W	
JR503	1-216-295-00	METAL CHIP 0 5% 1/10W (AEP, G, IT)	
JR504	1-216-295-00	METAL CHIP 0 5% 1/10W (E, AUS, EA, TR)	
		< TRANSISTOR >	
Q231	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q232	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q291	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q292	8-729-600-22	TRANSISTOR 2SA1235-F	

Ref. No.	Part No.	Description	Remark
Q311	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q341	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q342	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q361	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q391	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q501	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q502	8-729-805-67	TRANSISTOR 2SA1342	
Q504	8-729-805-67	TRANSISTOR 2SA1342	
Q506	8-729-805-43	TRANSISTOR 2SC3396	
Q507	8-729-805-40	TRANSISTOR 2SC3900	
Q601	8-729-620-06	TRANSISTOR 2SC3052-EF	
Q651	8-729-620-06	TRANSISTOR 2SC3052-EF	
		< RESISTOR >	
R101	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R102	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R111	1-216-121-00	METAL CHIP 1M 5% 1/10W (E, AUS, EA, TR)	
R112	1-216-073-00	METAL CHIP 10K 5% 1/10W (E, AUS, EA, TR)	
R113	1-216-089-00	METAL CHIP 47K 5% 1/10W (E, AUS, EA, TR)	
R114	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R121	1-216-121-00	METAL CHIP 1M 5% 1/10W	
R122	1-216-121-00	METAL CHIP 1M 5% 1/10W	
R130	1-216-065-00	METAL CHIP 4.7K 5% 1/10W	
R131	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R132	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R133	1-216-081-00	METAL CHIP 22K 5% 1/10W	
R134	1-216-077-00	METAL CHIP 15K 5% 1/10W	
R135	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R136	1-216-071-00	METAL CHIP 8.2K 5% 1/10W	
R137	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R138	1-216-061-00	METAL CHIP 3.3K 5% 1/10W	
R141	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R151	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R152	1-216-085-00	METAL CHIP 33K 5% 1/10W	
R161	1-216-121-00	METAL CHIP 1M 5% 1/10W (E, AUS, EA, TR)	
R162	1-216-073-00	METAL CHIP 10K 5% 1/10W (E, AUS, EA, TR)	
R163	1-216-089-00	METAL CHIP 47K 5% 1/10W (E, AUS, EA, TR)	
R164	1-216-089-00	METAL CHIP 47K 5% 1/10W	
R201	1-216-069-00	METAL CHIP 6.8K 5% 1/10W	
R202	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R203	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R204	1-216-049-00	METAL CHIP 1K 5% 1/10W	
R205	1-216-073-00	METAL CHIP 10K 5% 1/10W	
R206	1-216-073-00	METAL CHIP 10K 5% 1/10W	

AUDIO

Ref. No.	Part No.	Description			Remark
R207	1-216-049-00	METAL CHIP	1K	5%	1/10W
R208	1-216-049-00	METAL CHIP	1K	5%	1/10W
R209	1-216-049-00	METAL CHIP	1K	5%	1/10W
R210	1-216-049-00	METAL CHIP	1K	5%	1/10W
R211	1-216-121-00	METAL CHIP	1M	5%	1/10W
R212	1-216-121-00	METAL CHIP	1M	5%	1/10W
R213	1-216-121-00	METAL CHIP	1M	5%	1/10W
R214	1-216-121-00	METAL CHIP	1M	5%	1/10W
R215	1-216-121-00	METAL CHIP	1M	5%	1/10W
R216	1-216-121-00	METAL CHIP	1M	5%	1/10W
R217	1-216-121-00	METAL CHIP	1M	5%	1/10W
R231	1-216-073-00	METAL CHIP	10K	5%	1/10W
R232	1-216-093-00	METAL CHIP	68K	5%	1/10W
R233	1-216-049-00	METAL CHIP	1K	5%	1/10W
R234	1-216-097-00	METAL CHIP	100K	5%	1/10W
R235	1-216-049-00	METAL CHIP	1K	5%	1/10W
R236	1-216-049-00	METAL CHIP	1K	5%	1/10W
R237	1-216-049-00	METAL CHIP	1K	5%	1/10W
R238	1-216-049-00	METAL CHIP	1K	5%	1/10W
R240	1-216-295-00	METAL CHIP	0	5%	1/10W
R251	1-216-069-00	METAL CHIP	6.8K	5%	1/10W
R252	1-216-073-00	METAL CHIP	10K	5%	1/10W
R253	1-216-073-00	METAL CHIP	10K	5%	1/10W
R254	1-216-049-00	METAL CHIP	1K	5%	1/10W
R255	1-216-073-00	METAL CHIP	10K	5%	1/10W
R256	1-216-073-00	METAL CHIP	10K	5%	1/10W
R261	1-216-121-00	METAL CHIP	1M	5%	1/10W
R262	1-216-121-00	METAL CHIP	1M	5%	1/10W
R263	1-216-121-00	METAL CHIP	1M	5%	1/10W
R264	1-216-121-00	METAL CHIP	1M	5%	1/10W
R265	1-216-121-00	METAL CHIP	1M	5%	1/10W
R266	1-216-121-00	METAL CHIP	1M	5%	1/10W
R267	1-216-121-00	METAL CHIP	1M	5%	1/10W
R281	1-216-073-00	METAL CHIP	10K	5%	1/10W
R282	1-216-093-00	METAL CHIP	68K	5%	1/10W
R283	1-216-049-00	METAL CHIP	1K	5%	1/10W
R291	1-216-049-00	METAL CHIP	1K	5%	1/10W
R292	1-216-049-00	METAL CHIP	1K	5%	1/10W
R301	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R302	1-216-109-00	METAL CHIP	330K	5%	1/10W
R303	1-216-295-00	METAL CHIP	0	5%	1/10W
R304	1-216-079-00	METAL CHIP	18K	5%	1/10W
R308	1-216-105-00	METAL CHIP	220K	5%	1/10W
R309	1-216-085-00	METAL CHIP	33K	5%	1/10W
R312	1-216-095-00	METAL CHIP	82K	5%	1/10W
R313	1-216-105-00	METAL CHIP	220K	5%	1/10W
R315	1-216-121-00	METAL CHIP	1M	5%	1/10W
R316	1-216-097-00	METAL CHIP	100K	5%	1/10W
R331	1-216-097-00	METAL CHIP	100K	5%	1/10W
R341	1-216-121-00	METAL CHIP	1M	5%	1/10W
R342	1-216-049-00	METAL CHIP	1K	5%	1/10W
R343	1-216-049-00	METAL CHIP	1K	5%	1/10W
R344	1-216-097-00	METAL CHIP	100K	5%	1/10W
R345	1-216-073-00	METAL CHIP	10K	5%	1/10W
R351	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R352	1-216-109-00	METAL CHIP	330K	5%	1/10W
R353	1-216-295-00	METAL CHIP	0	5%	1/10W
R354	1-216-079-00	METAL CHIP	18K	5%	1/10W
R358	1-216-105-00	METAL CHIP	220K	5%	1/10W
R359	1-216-085-00	METAL CHIP	33K	5%	1/10W
R362	1-216-095-00	METAL CHIP	82K	5%	1/10W
R363	1-216-105-00	METAL CHIP	220K	5%	1/10W
R365	1-216-121-00	METAL CHIP	1M	5%	1/10W
R366	1-216-097-00	METAL CHIP	100K	5%	1/10W
R391	1-216-121-00	METAL CHIP	1M	5%	1/10W
R392	1-216-049-00	METAL CHIP	1K	5%	1/10W
R393	1-216-049-00	METAL CHIP	1K	5%	1/10W
R411	1-216-079-00	METAL CHIP	18K	5%	1/10W
R412	1-216-097-00	METAL CHIP	100K	5%	1/10W
R413	1-216-076-00	METAL CHIP	13K	5%	1/10W
R421	1-216-295-00	METAL CHIP	0	5%	1/10W
R422	1-216-295-00	METAL CHIP	0	5%	1/10W
R423	1-216-079-00	METAL CHIP	18K	5%	1/10W
R424	1-216-121-00	METAL CHIP	1M	5%	1/10W
R461	1-216-079-00	METAL CHIP	18K	5%	1/10W
R462	1-216-097-00	METAL CHIP	100K	5%	1/10W
R463	1-216-076-00	METAL CHIP	13K	5%	1/10W
R471	1-216-295-00	METAL CHIP	0	5%	1/10W
R472	1-216-295-00	METAL CHIP	0	5%	1/10W
R473	1-216-079-00	METAL CHIP	18K	5%	1/10W
R474	1-216-121-00	METAL CHIP	1M	5%	1/10W
R501	1-216-121-00	METAL CHIP	1M	5%	1/10W
R502	1-216-073-00	METAL CHIP	10K	5%	1/10W
R503	1-216-073-00	METAL CHIP	10K	5%	1/10W
R504	1-216-049-00	METAL CHIP	1K	5%	1/10W
R505	1-216-073-00	METAL CHIP	10K	5%	1/10W
R506	1-216-089-00	METAL CHIP	47K	5%	1/10W
R507	1-216-089-00	METAL CHIP	47K	5%	1/10W
R508	1-216-073-00	METAL CHIP	10K	5%	1/10W
R509	1-216-089-00	METAL CHIP	47K	5%	1/10W
R510	1-216-049-00	METAL CHIP	1K	5%	1/10W
R511	1-216-053-00	METAL CHIP	1.5K	5%	1/10W
R512	1-216-049-00	METAL CHIP	1K	5%	1/10W
R513	1-216-009-00	METAL CHIP	22	5%	1/10W
R514	1-216-009-00	METAL CHIP	22	5%	1/10W
R521	1-216-049-00	METAL CHIP	1K	5%	1/10W
R522	1-216-049-00	METAL CHIP	1K	5%	1/10W
R523	1-216-049-00	METAL CHIP	1K	5%	1/10W

AUDIO | **BRIDGE** | **CONNECTOR (A)** | **CONNECTOR (B)** | **JACK** | **SPEAKER** | **TRANSFORMER (A)** | **TRANSFORMER (B)** | **TRANSFORMER (C)**

Ref. No.	Part No.	Description			Remark
R524	1-216-049-00	METAL CHIP	1K	5%	1/10W
R525	1-216-049-00	METAL CHIP	1K	5%	1/10W
R526	1-216-049-00	METAL CHIP	1K	5%	1/10W
R527	1-216-049-00	METAL CHIP	1K	5%	1/10W
R531	1-216-049-00	METAL CHIP	1K	5%	1/10W
R532	1-216-049-00	METAL CHIP	1K	5%	1/10W
R533	1-216-049-00	METAL CHIP	1K	5%	1/10W
R534	1-216-049-00	METAL CHIP	1K	5%	1/10W
R535	1-216-049-00	METAL CHIP	1K	5%	1/10W
R536	1-216-049-00	METAL CHIP	1K	5%	1/10W
R537	1-216-049-00	METAL CHIP	1K	5%	1/10W
R538	1-216-049-00	METAL CHIP	1K	5%	1/10W
R541	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R542	1-216-097-00	METAL CHIP	100K	5%	1/10W
R543	1-216-049-00	METAL CHIP	1K	5%	1/10W
R601	1-216-075-00	METAL CHIP	12K	5%	1/10W
R602	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R603	1-216-075-00	METAL CHIP	12K	5%	1/10W
R604	1-216-017-00	METAL CHIP	47	5%	1/10W
R605	1-216-049-00	METAL CHIP	1K	5%	1/10W
R606	1-216-049-00	METAL CHIP	1K	5%	1/10W
R607	1-216-121-00	METAL CHIP	1M	5%	1/10W
R608	1-216-097-00	METAL CHIP	100K	5%	1/10W
R651	1-216-075-00	METAL CHIP	12K	5%	1/10W
R652	1-216-057-00	METAL CHIP	2.2K	5%	1/10W
R653	1-216-075-00	METAL CHIP	12K	5%	1/10W
R654	1-216-017-00	METAL CHIP	47	5%	1/10W
R655	1-216-049-00	METAL CHIP	1K	5%	1/10W
R656	1-216-049-00	METAL CHIP	1K	5%	1/10W
R657	1-216-121-00	METAL CHIP	1M	5%	1/10W
R658	1-216-097-00	METAL CHIP	100K	5%	1/10W

< VIBRATOR >

X501	1-577-364-11	VIBRATOR, CERAMIC (12MHz)	

****

Ref. No.	Part No.	Description	Remark
*	1-642-446-11	BRIDGE BOARD	
		**********	
*	1-642-447-11	CONNECTOR (A) BOARD	
		**********	
*	1-642-448-11	CONNECTOR (B) BOARD	
		**********	
*	1-642-444-11	JACK BOARD	
		**********	
*	1-642-445-11	SPEAKER BOARD	
		**********	
*	1-642-449-11	TRANSFORMER (A) BOARD	
		**********	
*	1-642-450-11	TRANSFORMER (B) BOARD	
		**********	
*	1-642-451-11	TRANSFORMER (C) BOARD	
		**********	

< CAPACITOR >

C401	1-162-282-31	CERAMIC	100PF	10%	50V
C451	1-162-282-31	CERAMIC	100PF	10%	50V
C891	1-164-159-11	CERAMIC	0.1uF		50V (G, IT)
C892	1-164-159-11	CERAMIC	0.1uF		50V (G, IT)
C893	1-164-159-11	CERAMIC	0.1uF		50V (G, IT)
C894	1-164-159-11	CERAMIC	0.1uF		50V (G, IT)
C895	1-162-290-31	CERAMIC	470PF	10%	50V
C896	1-162-290-31	CERAMIC	470PF	10%	50V
C897	1-162-290-31	CERAMIC	470PF	10%	50V
C898	1-162-290-31	CERAMIC	470PF	10%	50V

< CONNECTOR >

CN101	1-563-311-11	CONNECTOR, BOARD TO BOARD 10P
CN102	1-573-826-11	CONNECTOR, BOARD TO BOARD 12P
* CN311	1-573-844-31	CONNECTOR, BOARD TO BOARD 12P
* CN312	1-573-844-31	CONNECTOR, BOARD TO BOARD 12P
* CN401	1-573-844-11	CONNECTOR, BOARD TO BOARD 12P
* CN402	1-573-844-11	CONNECTOR, BOARD TO BOARD 12P
* CN403	1-573-844-11	CONNECTOR, BOARD TO BOARD 12P
CN404	1-568-860-11	SOCKET, CONNECTOR 17P
* CN405	1-568-850-11	SOCKET, CONNECTOR 7P
* CN411	1-580-739-11	SOCKET, CONNECTOR 15P (SYSTEM CONTROL 1)
* CN412	1-580-740-11	SOCKET, CONNECTOR 17P (SYSTEM CONTROL 2)
CN701	1-563-311-11	CONNECTOR, BOARD TO BOARD 10P
* CN702	1-564-518-11	PLUG, CONNECTOR 3P
CN821	1-573-094-11	SOCKET, CONNECTOR 13P
CN822	1-573-094-11	SOCKET, CONNECTOR 13P
* CN911	1-580-939-11	SOCKET, CONNECTOR 4P
* CN912	1-580-939-11	SOCKET, CONNECTOR 4P (E, EA, TR)
CN913	1-569-493-11	SOCKET, CONNECTOR 7P
* CN914	1-569-502-11	PIN, CONNECTOR 7P
CN921	1-569-496-11	SOCKET, CONNECTOR 10P
* CN922	1-569-502-11	PIN, CONNECTOR 7P

BRIDGE **CONNECTOR (A)** **CONNECTOR (B)** **JACK** **SPEAKER**
TRANSFORMER (A) **TRANSFORMER (B)** **TRANSFORMER (C)**

Ref. No.	Part No.	Description				Remark
CN931	1-569-493-11	SOCKET, CONNECTOR 7P				
CN932	1-569-493-11	SOCKET, CONNECTOR 7P				
		< JACK >				
J401	1-565-304-11	JACK, PIN 4P (ADAPTOR) (E, AUS, EA, TR)				
J402	1-569-662-11	JACK, PIN 1P (SUPER WOOFER OUT)				
J801	1-573-110-11	JACK, PIN 2P (SURROUND SPEAKER)				
		< RESISTOR >				
R401	1-249-417-11	CARBON	1K	5%	1/4W	
R451	1-249-417-11	CARBON	1K	5%	1/4W	
R891	1-247-727-11	CARBON	10	5%	1/2W	(G, IT)
R892	1-247-727-11	CARBON	10	5%	1/2W	(G, IT)
R893	1-247-727-11	CARBON	10	5%	1/2W	(G, IT)
R894	1-247-727-11	CARBON	10	5%	1/2W	(G, IT)
		< TERMINAL >				
TB801	1-537-336-11	TERMINAL BOARD (SPEAKER)				
**********						
		MISCELLANEOUS				
		**********				
7	1-690-994-11	WIRE (FLAT TYPE) (17 CORE)				
25	1-690-993-11	WIRE (FLAT TYPE) (13 CORE)				
27	1-690-992-11	WIRE (FLAT TYPE) (7 CORE)				
31	1-590-240-11	WIRE, FLAT TYPE (7 CORE)				
32	1-535-706-11	PLUG, JUMPER (E, AUS, EA, TR)				
⚠F901	1-532-259-00	FUSE (T1.6A)				
⚠F902	1-532-237-00	FUSE, TIME LAG (T3.15A) (E, EA, TR)				
M801	1-541-953-11	MOTOR, DC FAN				
⚠PT901	1-450-893-11	TRANSFORMER, POWER (AEP, G, IT)				
⚠PT901	1-450-894-11	TRANSFORMER, POWER (AUS)				
⚠PT901	1-450-895-21	TRANSFORMER, POWER (E, EA, TR)				
**********						
		**********				
		HARDWARE LIST				
		**********				
#1	7-682-547-04	SCREW +BVTT 3X6 (S)				
#2	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S				
#3	7-685-645-79	SCREW +BVTP 3X6 TYPE2 IT-3				
#4	7-682-547-09	SCREW +BVTT 3X6 (S)				
#5	7-685-133-19	SCREW +BTP 2.6X6 TYPE2 N-S				

The components identified by mark ⚠ or dotted line with mark ⚠ are critical for safety. Replace only with part number specified.

9-957-226-11

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Audio Group

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